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Manufacturers RECORD

An Exponent of Americanism

Entered as second-class matter at the Postoffice at Baltimore, Md., under the Act of March 3, 1879

Vol. LXXIV No. 3
WEEKLY
ESTABLISHED 1882

BALTIMORE, MD., JULY 18, 1918

\$5.00 PER YEAR
SINGLE COPY 15 CENTS

"But One Way to Peace, and That Is the Way to Berlin"

Editor Manufacturers Record:

My opinion is that we cannot consider any terms of peace whatsoever with the German Government as now constituted. Germany must be licked and the Hohenzollerns kicked off the throne before we can even talk peace without outraging our self-respect.

The German military ring must be broken and so shattered that it can never be reunited. Those who have been responsible for the rape of Belgium and France; those who have been responsible for the heinous outrages upon the civilian populations overridden by Germany; those who have been responsible for breaking the rules of war and using poisonous gas in battle; those who have been responsible for torpedoing passenger vessels and hospital ships, and for dropping aerial bombs on shore hospitals; those who have been responsible for the killing and maiming of women and children in London and Paris with aerial bombs; those who have been responsible for breaking the most sacred treaties and obligations of nations—have placed themselves beyond the pale and cannot and must not be bargained with in any peace arrangement.

Those militaristic bandits of the breed of Attila who cold-bloodedly prepared to plunder the world and enslave mankind, and to that nefarious end planned to violate every human obligation and attribute of duty, mercy and decency, are not fit to place their names to a peace compact beside those of the heroes who shall, with sacrifice of blood and treasure, save the world from their clutches.

Anyone proposing peace with Germany before Kaiserism shall have been crushed out of existence should either be interned or be placed in an insane asylum for medical treatment. There is but one way to peace, and that is the way to Berlin. It will be a long, hard, expensive and bloody road, but it is the only road, and when we shall have arrived at the end of that road we shall have only a subjugated, suppliant, Kamerad-calling populace to deal with, and the terms which we shall then make will not be the terms of any bargain, but merely terms imposed by us according to our ideas of justice.

Justice will make one inexorable demand on that occasion, and it will be that Germany shall bear the burden of rebuilding and reimbursing Belgium and the desolated portions of Northern France in full measure, and Alsace and Lorraine must be restored to France.

What other terms may be imposed will matter far less.

Landing P. O., New Jersey.

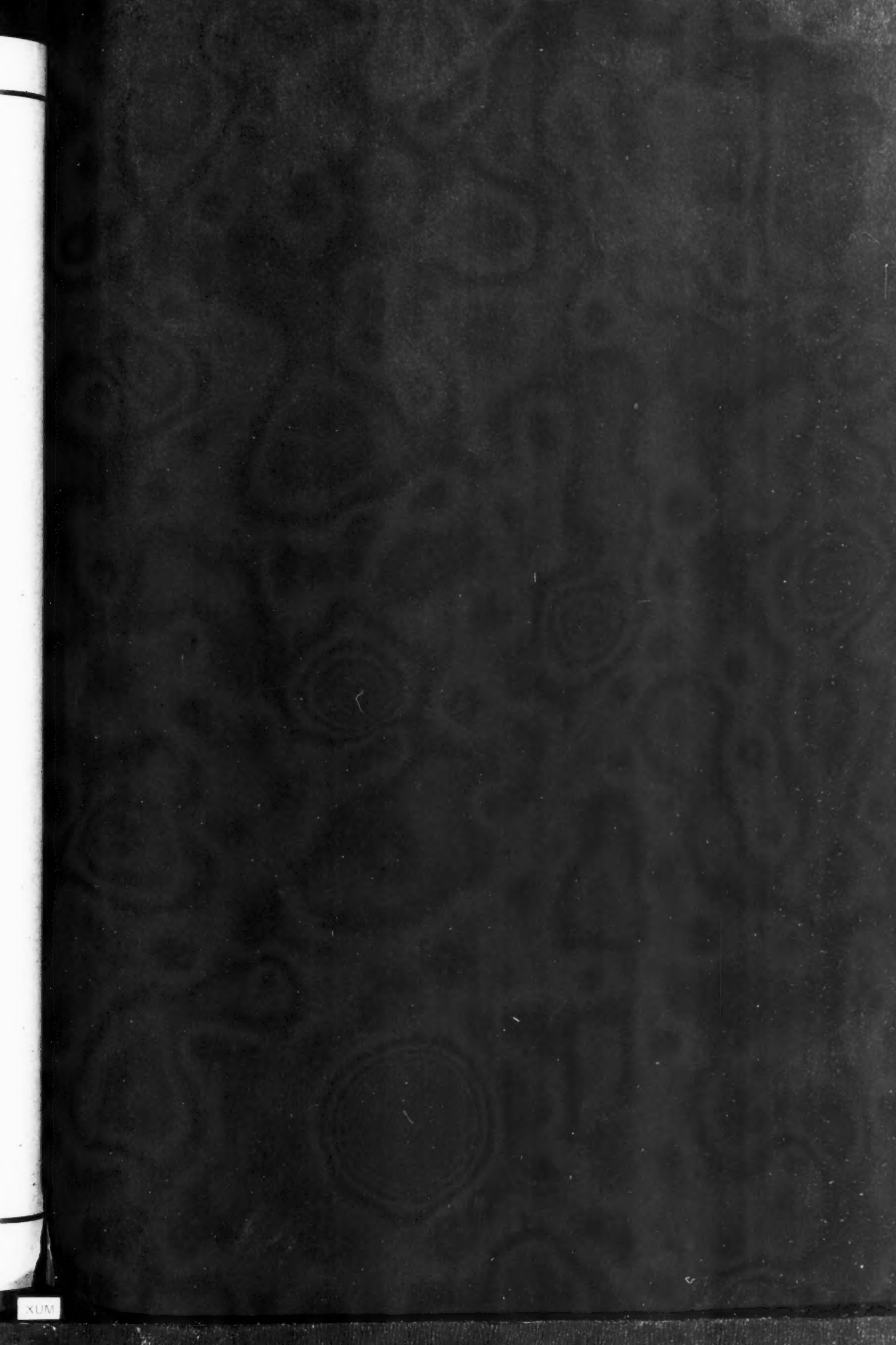
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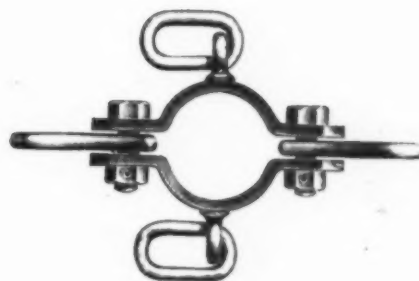
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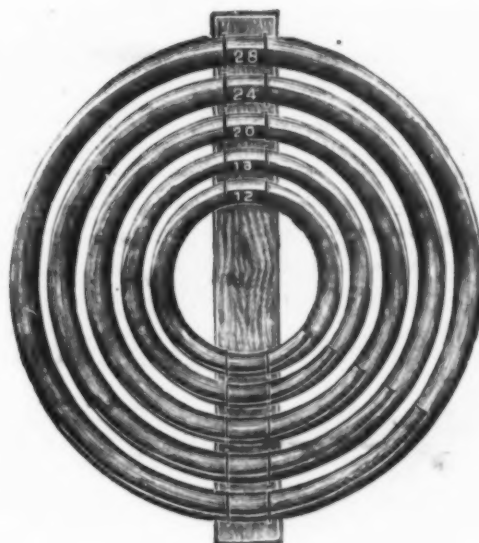
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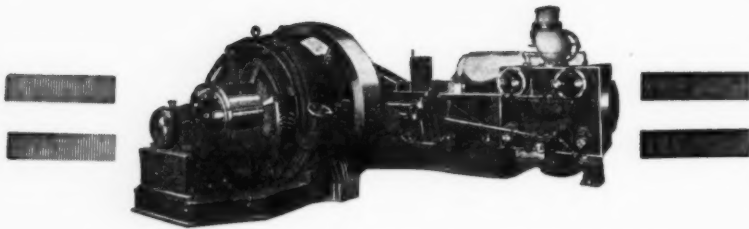
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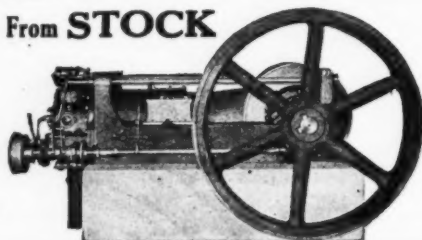
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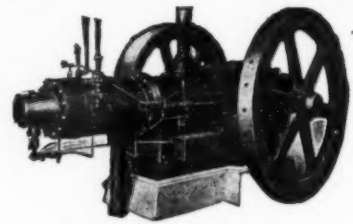
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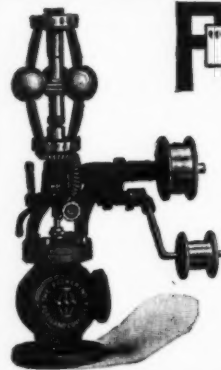
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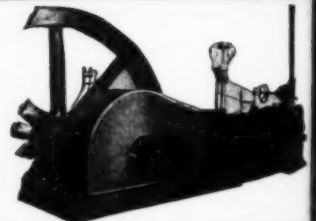
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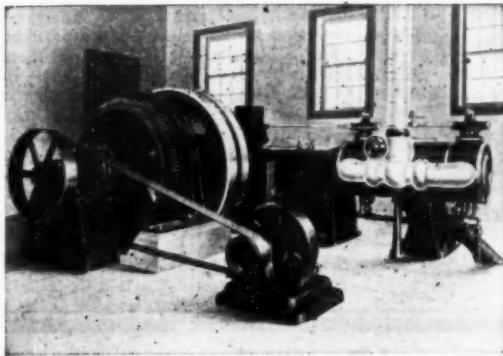
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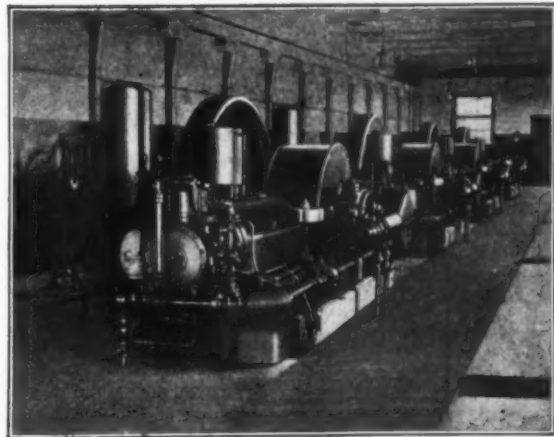
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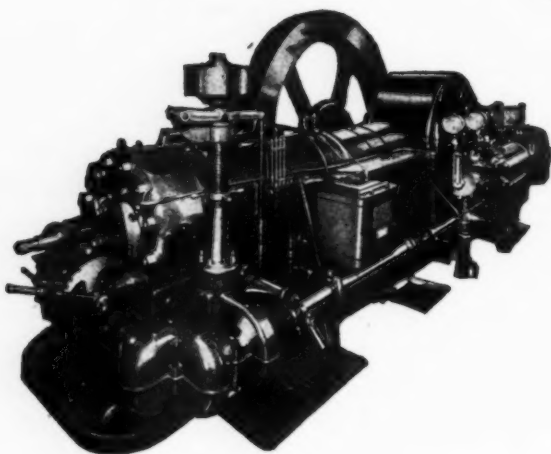
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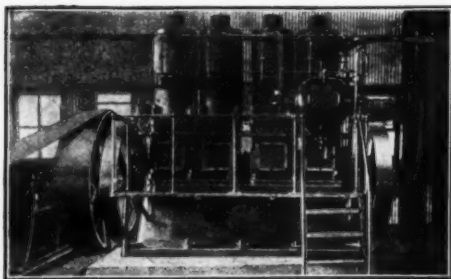
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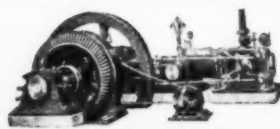
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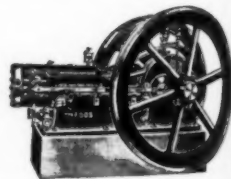
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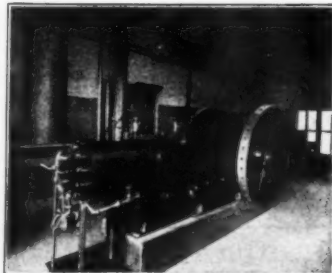


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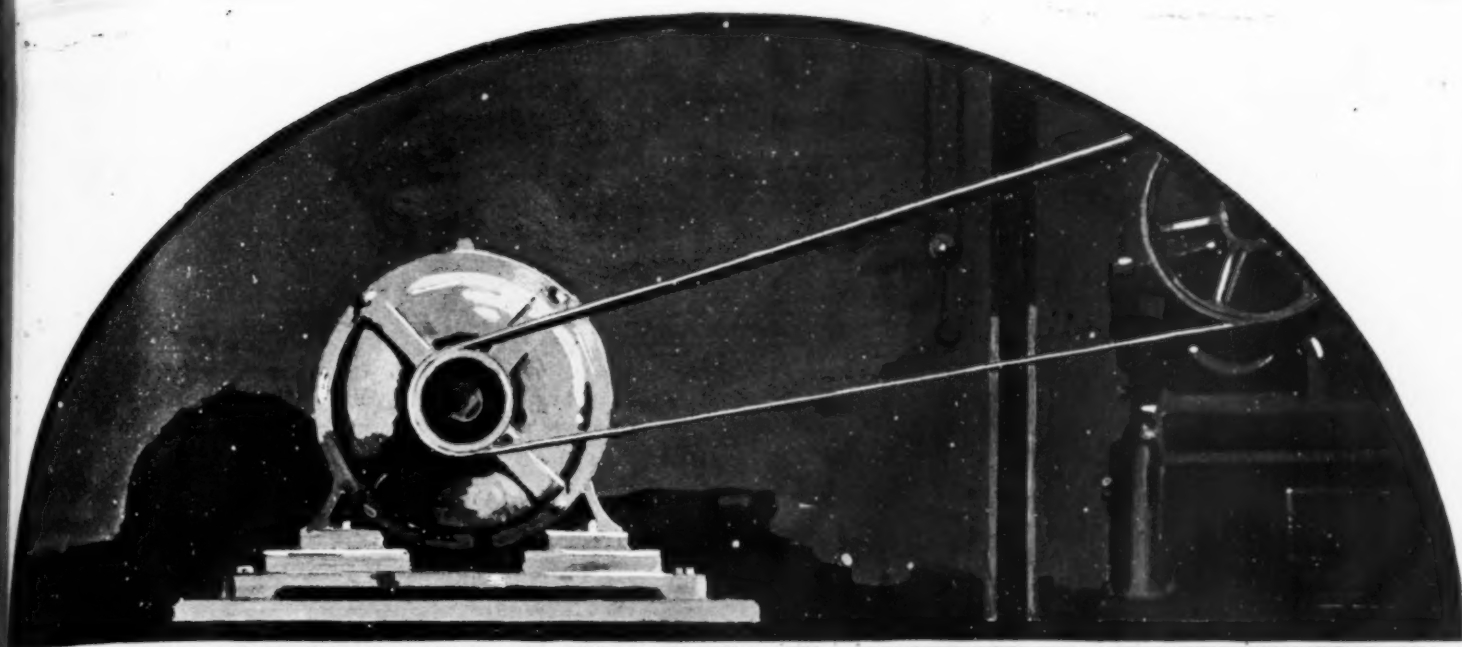
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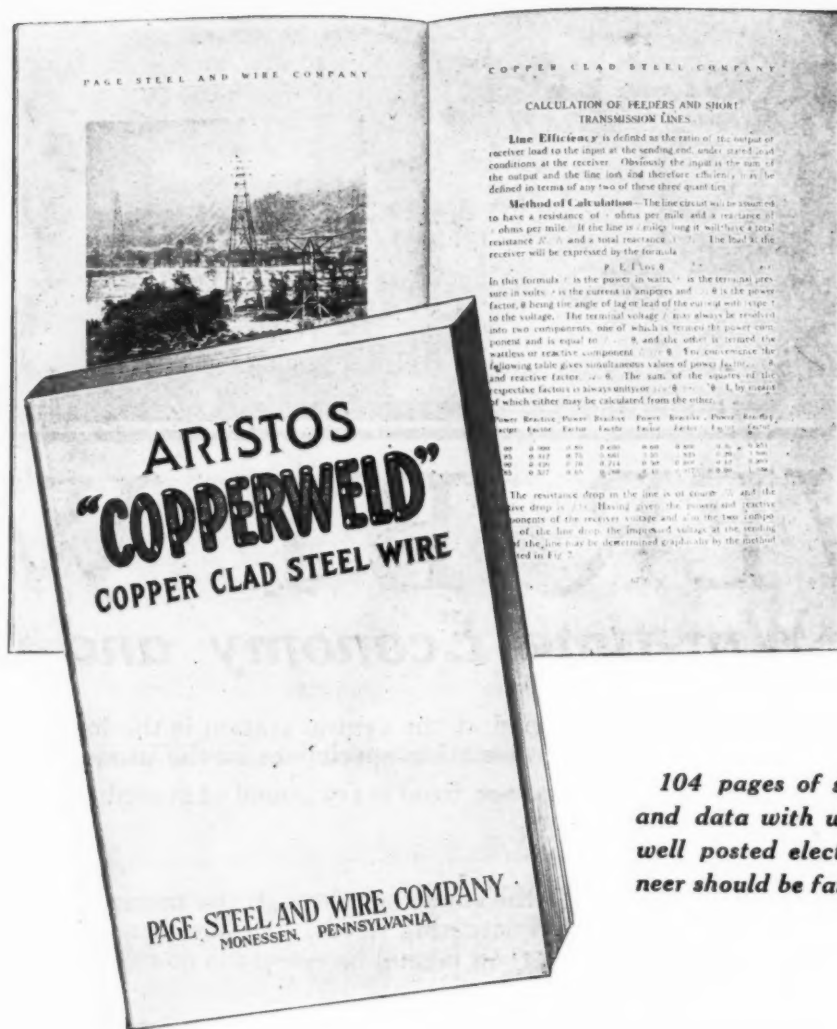
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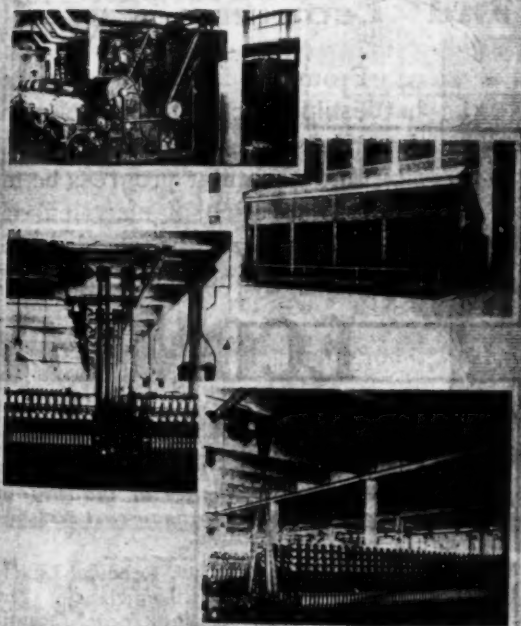
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Circular 7153

—is a timely publication which should be in the hands of every textile man—particularly those who feel the need of increased efficiency and increased productive power.

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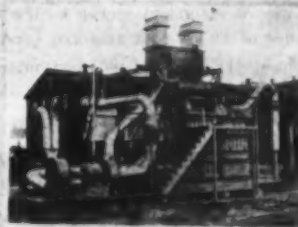
Westinghouse Service to Textile Manufacturers

ELECTRIC drive is now in general use in textile mills because textile manufacturers have found by experience that it increases production and improves the quality of the goods. These advantages, however, are not the only ones secured through the use of this drive, for in addition it provides greater safety and cleanliness, better lighting, entire freedom as to the arrangement of the machinery, and the ability to operate any of the machines independently of the rest.

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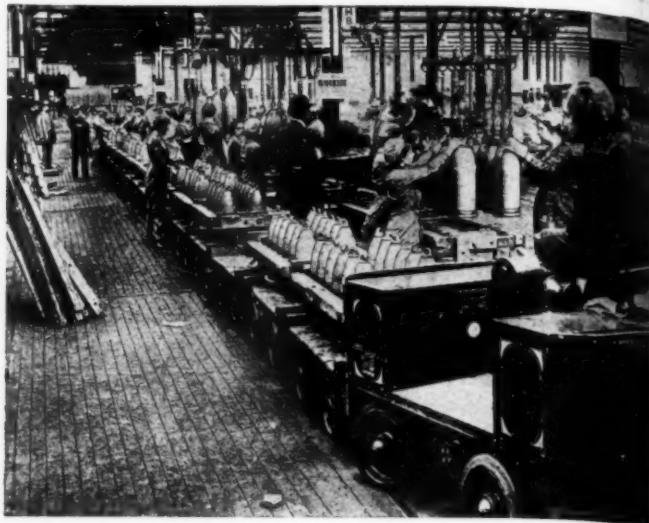
In determining the ability of any organization to perform a given service, the most important factors are its past experience and its present facilities. In both respects, the Westinghouse Electric and Manufacturing Company shows itself able to render the highest service to the textile manufacturer.



Extensive Air-Blast Cotton Gie, showing the simplicity of the Special-Cap Mount Drive.



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are provided with double discs, having a ball and socket bearing at their backs. The discs are wedged between the tapered seats, insuring tight though easily operated valves.

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The Vogt Sectional Rocking and Dumping Grate

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Low in Maintenance on Account of the Parts Exposed to the Fire Being Interchangeable

Write for Bulletin G1

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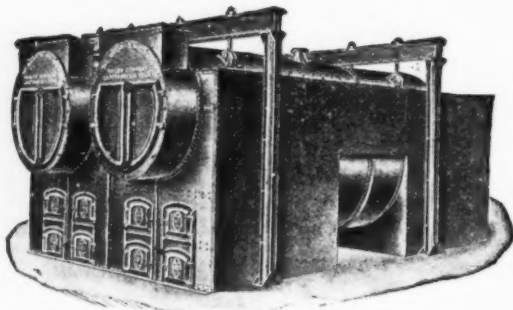
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Specialists for Forty-
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ROOT Water Tube Boilers
Spiral Riveted Pipe

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MANUFACTURING CO.

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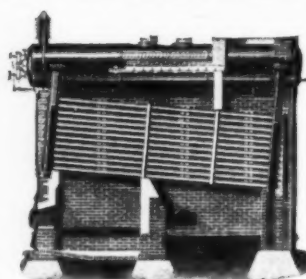
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Units 100 to 1,000 H. P.

All steel construction. Drop forged, everlasting H H plates. Baffling, vertical, horizontal or combination. Supported free of brick work. Can be arranged for superheater or any type stoker without radical change in design.



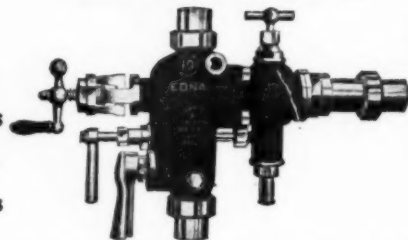
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Uncle Sam O.K.'s Thomas Grate Bars

These letters from the War Department prove the advantages of Thomas Bars. And one feature that is specially important is that they pay for themselves in 60 to 65 days in coal saved. Coal is scarce, and outside of the saving to you it is a patriotic duty to save as much as possible and help win this war for democracy. The U. S. Government only buys the best—doesn't their O. K. mean something to you? Investigate! Get full particulars.



Write today for details
about Thomas Elliptic
Grate Bars for your plant.

**Thomas Grate Bar
Company**
Birmingham, Ala.

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE
First Cincinnati District
Room 405 Custom House Cincinnati, Ohio

March 25, 1918.

Thomas Grate Bar Company,
Birmingham, Ala.

Sir—Replying to your letter of the
23d instant, relative to Thomas Grate
Bars.

Our experience with your grate bars
on towboats and dredges has been
more satisfactory than with any
other bars of plain or shaking type,
but we have no data to show the
amount of saving from the use of
your bars. Very respectfully,

R. R. JONES, District Engineer.

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE
Dam No. 22, Ohio River, Ravenswood, W. Va.

March 5, 1918.

From: The Assistant in Charge, Dam

No. 22, O. R.

To: The District Engineer Officer,
Wheeling, W. Va.

Subject: Grates.

1. In answer to your letter of Jan.
3, 1918, reference to grates made by
the Thomas Grate Bar Co., Birming-
ham, Ala., the rigid type has never
been used on this work, but there is
one set of the shaking type on the
Str. Gen. Craighill which has proven
very satisfactory in fuel saving. The
saving in fuel has been 21 per cent.,
and with the present rate of coal
makes a saving of about \$94.50 per
month. The cost of the set is \$198.35.
At this rate it takes practically 63
days to pay for a set of grate bars.

W. A. WELLS, Junior Engineer.

WAR DEPARTMENT
UNITED STATES ENGINEER OFFICE
Vicksburg District, Room 218, P. O. Building
P. O. Drawer 421, Vicksburg, Miss.

March 21, 1918.

From: H. M. Marshall, Asst. Engr.

To: The Dist. Engr., Vicksburg, Miss.

Subject: Use of Thomas Grate Bars

on U. S. Snagboat C. W. How-
ell, working on Red River, La.

No. of days.

Under steam. Fuel used. Avg. per day.

Without bars—260 days:

Apr. 1, 1916, 439.9 tons coal, 1,834 at \$5—\$9,42

Mar. 1, 1917, 271¼ cords wood, 1,043 at \$2—2.09

With bars—232 days: \$11.51

Apr. 1, 1917, 256.4 tons coal, 1,105 at \$5—5.53

Mar. 1, 1918, 343¼ cords wood, 1,465 at \$2—2.97

\$8.50

Saving per day with bars, \$3.01—20%.

Cost of bars, \$194.45.

Number of days' saving to pay for
bars, 64½.

H. M. MARSHALL, Asst. Engr.

PITTSBURG FILTERS

PURIFY WATER FOR ALL PURPOSES

WRITE FOR CATALOG

PITTSBURGH FILTER MFG. CO.

KANSAS CITY, MO.

PITTSBURGH, PA.

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Manufacturers and Distillers
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GASOLINE-NAPTHAS

Lubricating and Illuminating Oils

Unexcelled Producing, Refining, Transporting Facilities

ROBINSON OILS

"they lubricate more and outlast other oils"

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is Manufactured from Southern Asphalt Base Crude—
under the supervision of the most skilled chemists.

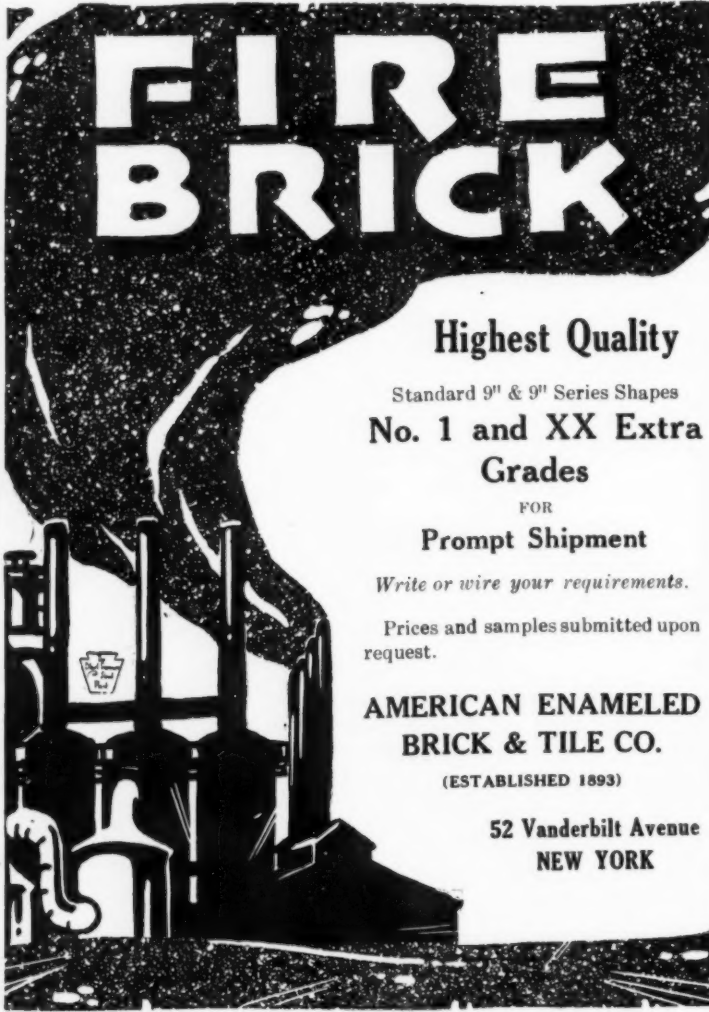
It leaves less carbon as it contains no paraffine to
gum and stick.

Get it from your Dealer—Look for the Sign of the
Orange Disc.

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SUPREME AUTO OIL

GULF REFINING COMPANY

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Prices and samples submitted upon
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"MT. SAVAGE" "REFRACTO"
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Capacity 20,000,000 Per Year
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DOMINION RED & BLACK

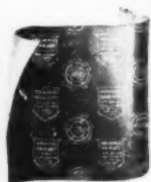
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Prepared Fire Clay
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Our system provides for pure water for boiler feed and for all industrial purposes. Write for circular and special detailed information.
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FOR BOILER FEED AND ALL INDUSTRIAL USES
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MAKE ICE WITHOUT COAL—

The Arctic-Pownall Raw Water Ice-Making System makes pure, palatable, crystal clear ice, using any cheap motive power. For instance

		TONS ICE	POWER
Polar Ice & Coal Co.,	Anniston, Ala.	50	Electricity
Mission Ice Co.,	San Antonio, Tex.	50	"
Pius Sinz,	Dallas, Tex.	15	Gas Engine
Centennial Ice Co.,	Birmingham, Ala.	40	Electricity

are just a few of your neighbors using this system.

It will pay you to write us.

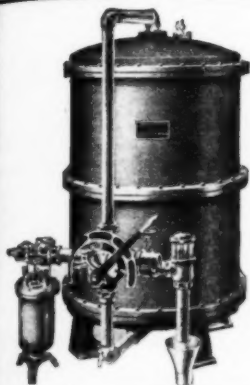
The Arctic Ice Machine Co.

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CANTON, OHIO

Southern Office
O. J. MORRIS, Grand Hotel Bldg., Cincinnati, Ohio

FILTERS WATER PURIFICATION SOFTENERS INTERNATIONAL FILTER CO.

40 South Dearborn St.—CHICAGO—Woolworth Bldg, N. Y.



TO GIVE YOUR CLIENTS
PURE WATER
Use

Roberts Filters

COMPLETE LINE SHOWN IN
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PAGES 1414-1415

Catalogue Mailed on Request

Be Sure of the Address

Roberts Filter Mfg. Co.

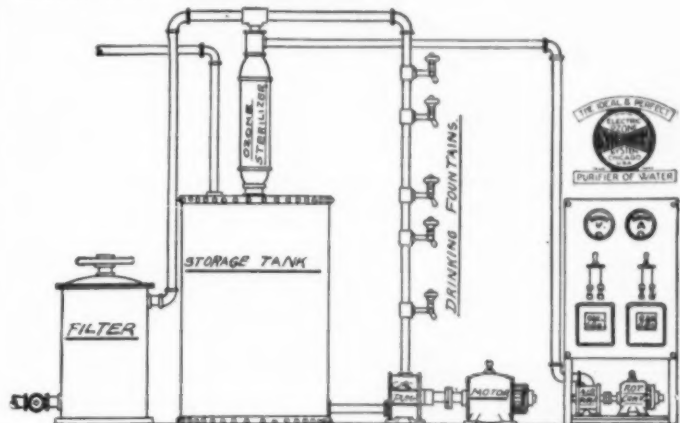
1707 Flatiron Building, New York
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used for the past five years by the 2,000 Officials and Employees of the Chicago office of the C. B. & Q. Ry. Co., has been supplied at a cost of only one cent for each 800 to 1000 gallons purified by an

Electric Ozone Sterilizer System

which destroys and literally consumes and removes from the water the harmful germs and organic impurities.



Typical layout of a circulating system. One of the several types we make.

We can furnish a system to meet your drinking water requirements. If you have a filtering plant, or a circulating and cooling system, our system can be attached. If you buy bottled water, we can save you money—if any quantity, 50% or more.

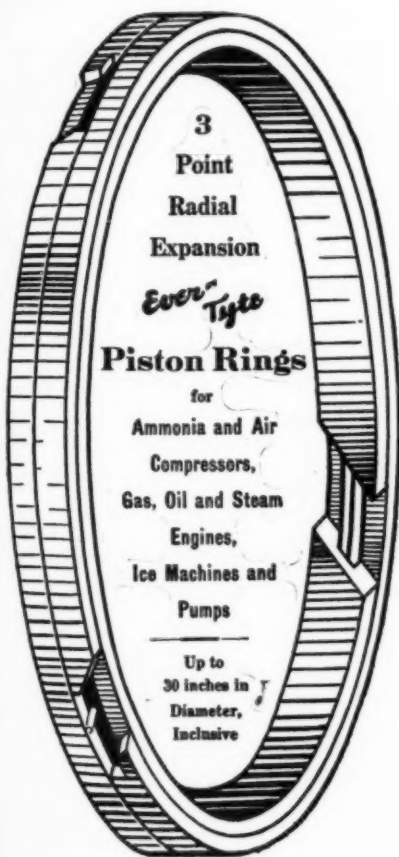
We furnish systems for Hospitals, Clubs, Apartment and Office Buildings, Schools, Institutions, Factories, Offices, Swimming Pools and Municipalities.

Responsible Representatives Wanted.

Electric Ozone Sterilizer Co.

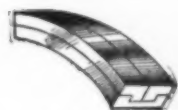
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Ever-Tight PISTON RINGS

PAY FOR THEMSELVES



Note: Right Angle Interlock

Guaranteed
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Initial
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Until
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—
Better
Lubrication
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Less
Friction
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More Ice
with
Less Power
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Conserve
Ammonia

MISSOURI SOUTHERN RAILROAD COMPANY
GENERAL OFFICE

ST. LOUIS, MO.
April 13, 1918.

LEEPER, MO.
April 13, 1918.
File 0708.

Ever Tight Piston Ring Co.,
St. Louis, Missouri.

Gentlemen:

Replying to your letter of the 9th inst., making inquiry as to service obtained from the set of Ever Tight Piston Rings shipped us on February 23.

We are having the same good results from this set of rings as we have always had from the Ever Tight Piston Ring. We have used this style of packing ring for some five years and do not hesitate in stating that we believe it is the best ring on the market today.

Yours truly,
H. R. R. R.

RM

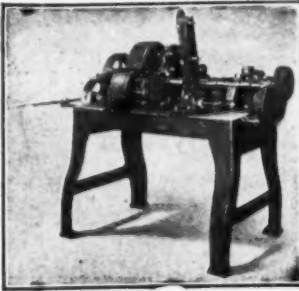
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FREE: "The Piston Ring Primer"
Very Interesting—Send for Copy.

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Bliss Automatic Trimmer and Beader adapted for trimming and beading straight cylindrical shells. It successively trims and beads, both operations being done simultaneously. Speed 35,000 to 40,000 a day. We build a large number of different styles of trimming, beading, flanging and curling machines. Tell us your particular requirements so that we can send you descriptive matter.

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PORTABLE VISE STAND

It's a "Champion"



Really a movable bench. You can move the vise, tools and work to a machine. It's a big convenience in roundhouses, assembling rooms, repair shops, etc.

Just the thing for automobile repair shops.

Let us tell you about it.

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The use of Hack Saws has been standardized by the Starrett Hack Saw Chart which tells what saw to use on any job. — Write for one —

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Chart EC on request

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Designers and Manufacturers of
ELEVATING, CONVEYING AND POWER
TRANSMITTING MACHINERY

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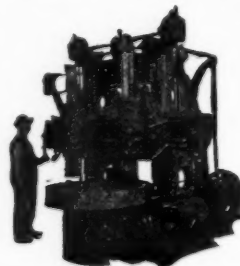
Elevating and Conveying Systems for Economically Unloading, Storing and Delivering Coal as required.

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They are "show you's" of the esteem in which the belting authorities of the world hold the

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BELT**

They have come to us, and we prize them for what they stand—the merit of the GANDY product.

But the greatest satisfaction that can ever come to the GANDY organization is not in the number of medals we can collect, but in the number of belting users we can serve.

The GANDY Stitched Cotton Duck Belt is waiting to give you the same 100% service; it is rendering in thousands of mills, mines, machine shops and manufacturing plants throughout the world.

The first step towards bringing this faithful worker into your plant is to write and outline your requirements.

Why not do it now?
Faithfully,
"On-the-Job" GANDY,
Service Manager

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STITCHED CANVAS BELTING

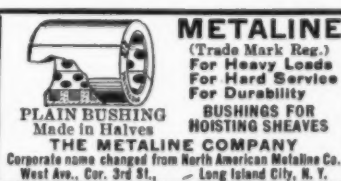
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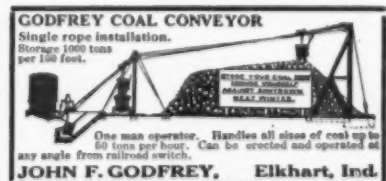


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Special Attention Given to Repairs
Office and Warehouse
Mercer, Grant and Water Sts. BALTIMORE, MD.

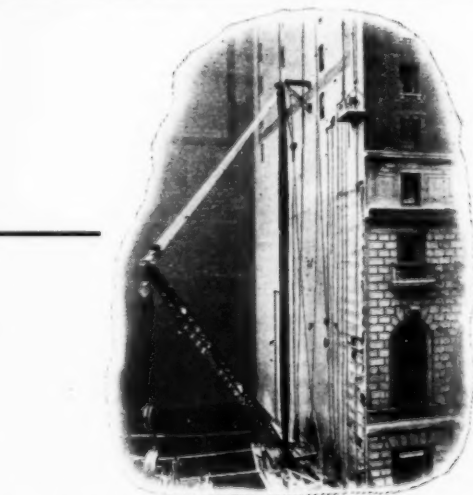
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The Desmond-Stephan Dresser Co.
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For Heavy Loads
For Hard Service
For Durability
BUSHINGS FOR
HOISTING SHEAVES
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Corporate name changed from North American Metaline Co.
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GODFREY COAL CONVEYOR
Single rope installation.
Storage 1000 tons
per 100 feet.
One man operator. Handles all sizes of coal up to
60 tons per hour. Can be erected and operated at
any angle from railroad switch.
JOHN F. GODFREY, Elkhart, Ind.



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But on all of the jobs you will find that rope is practically the basis for all operations; in fact, the work would be impossible without it. This being the case, is it not worth while that the selection of this important factor be given the consideration which it deserves?

Because of its recognized high Quality, COLUMBIAN Manila Rope, if given a trial, will prove its fitness for this work.

Let us quote on your requirements

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WATERBURY

The several grades of Waterbury Manila and Sisal Cordage are designed to meet every demand of rope service and cost.

For more than a century countless users who measure value by service have minimized their rope troubles by specifying Waterbury.

Catalog on Request

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CORDAGE

Here's the **WONDERFUL MEDART** Ring Oiling Shaft Hanger for a *fair price* and there's none better for *more money*.



Medart Double Brace
Ball and Socket Ad-
justment Self Lubrica-
ting Drop Hanger.

Very heavy, strong, rigid, open-bottom, four-way adjustment frame. Is easy to erect and align. Positive Steel Spring oil wiper in bearing obviates necessity for replenishing oil supply oftener than twice a year.

Do a Little Calculation

Granting *for the sake of argument* that in the use of good Ring Oiling Bearings when properly aligned there may be, say ten per cent power loss through friction—*there would be less with the use of Medart Bearings if carefully aligned when installed*—would YOU say that the purchase of either Ball or Roller Bearings would actually repay you in saving only 65% of that 10% friction loss when considering their cost is from three to five times the cost of Medart Ring Oiling Bearings? This is not theory—it's fact, though it may explode a modern fallacy.

What Reasoning Was Behind This?

Why did the AMERICAN TOOL WORKS COMPANY at Cincinnati, Ohio, not equip their marvelous, efficiencyized, new, five-story plant with either Ball or Roller Bearings? They bought hundreds of Medart Ring Oiling Bearings. Why also have these corporations not bought exclusively either Ball or Roller Bearings instead of Medart Ring Oiling Bearings? Wagner Electric Manufacturing Company, Acme Machine Tool Company, Cincinnati Grinder Company, Brown Shoe Company, Cincinnati Planer Company, International Shoe Company. *Think it over.*

IN ALL SIZES—SHIPMENTS FROM STOCK

Medart Patent Pulley Company

Manufacturers for 39 Years of the Most Complete Line of Power Transmission Equipment

Works:

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Cincinnati, 211 Vine St.

Engineering Sales Office: Philadelphia, Colonial Trust Co. Bldg.

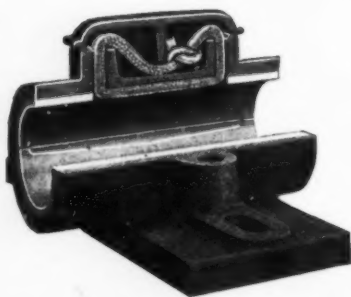
Maximum Efficiency — IN THE — Transmission of Power

can be obtained only by the installation of a dependable equipment of Transmission Appliances, and a dependable equipment must be one of high quality—the best that can be made.

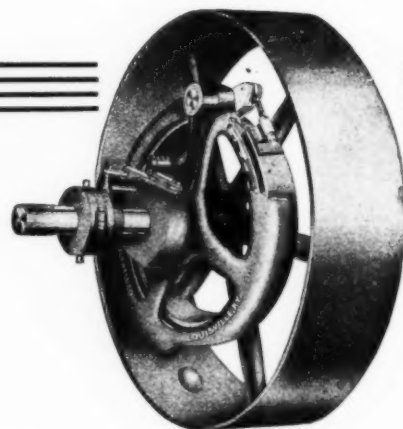
High quality does not necessarily mean high prices, and therefore it is good policy to consider prices when buying, but not to the exclusion of quality.

Our reputation has been built up by manufacturing only the best quality of Transmission Appliances and selling at lowest possible reasonable profit prices.

T. B. WOOD'S SONS CO.
CHAMBERSBURG, PA.



Manufacturers of the
largest and most com-
plete line of Power
Transmitting Machin-
ery made by any one
manufacturer.



Clutch Economy

There are three reasons why the Caldwell Friction Clutch is economical: (1) It eliminates the necessity of frequent repairs. (2) It avoids unnecessary and costly interruptions in production. (3) It prevents accidents to employees—

Because it's built on correct mechanical principles to resist hard wear. Important parts made of steel. Easy to operate. One Lever Controls It. One Screw Adjusts It. Simple, compact, safe.

It will save you money.

Send for Catalogue

W. E. CALDWELL CO.
INCORPORATED

270 E. Brandeis Street
LOUISVILLE, KY.

Caldwell
FRICTION
CLUTCHES

"STAR BRAND"
SHEET COPPER

YELLOW (Muntz) METAL ROD

Rectangular **HARD COPPER BAR**

From Our **Baltimore Stock**

Ready for **Immediate Delivery**

U. T. Hungerford Brass & Copper Co.
Baltimore, Md.

NEW YORK PHILADELPHIA BOSTON SAN FRANCISCO

CRESSON-MORRIS CO.
POWER TRANSMITTING MACHINERY



We make a complete line of Power Transmitting Machinery, Shafting, Rope Transmission, Machine Moulded Iron and Steel Gears for heavy service.

We should be pleased to have you consult our Engineering Department about any power transmitting problems that you may have.

CRESSON-MORRIS COMPANY
ENGINEERS — FOUNDERS — MACHINISTS — PHILADELPHIA, PA.



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by the use of our No. 3 (*Boronic-Copper Alloy*), says one of the largest manufacturers of locomotives

This large concern buys our No. 3 (all metal, in shot form) in ton lots, and when asked what they use it for, they say "IN EVERYTHING." They discovered that they can increase the life of their babbitts 300 per cent. by the use of but three pounds of No. 3 to the hundred pounds of any grade of babbitt—entered in the simplest way.

BORONIC PRODUCTS deoxidize, purify, solid-cast and improve the physical structure of all metals "from gold to steel."

See our advertisements in the National Telephone Directory (Classified) of the Reuben H. Donnelly Corp. Our lists of products are filed with and can be seen at all the service stations of this corporation.

Send for our Literature and Price List NOW.
You will be greatly benefitted if you ACT.

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Efficiency of production is assured by using Morse Silent Gear Belts

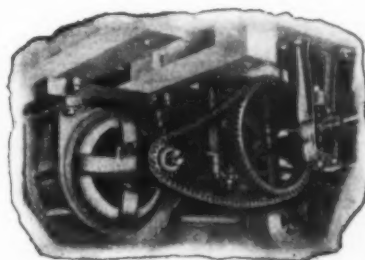


Morse Silent Gear Drive

is the only chain drive not dependent on Oil Baths for Service, Silence and Durability.

Power Plants can not be more efficient than their Transmission systems. Machine Production can not exceed the efficiency of their Drives.

**SAVES
SPACE**



**SAVES
LIGHT**

30 H. P. Overhead Line Shaft Drive
American Tool Works

MORSE

Drives Which Make Good and Stay Good

Centrifugal
Fire Pump,
1000
G. P. M.,
825
R. P. M.,
for Fire
Service
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Secure estimate on your Transmission loss, trace it to the source
Consult MORSE ENGINEERING Service

Assistance without obligation

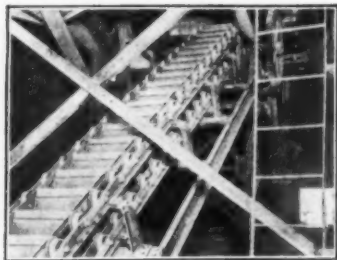
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CLEVELAND, OHIO, 421 Engineers Bldg.	KANSAS CITY, MO.....
DETROIT, MICH.....1003 Woodward Ave.	Morse Engineering Co.
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SAN FRANCISCO, CAL.....	ST. LOUIS, MO., Morse Engineering Co.
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702 Candler Building	EAST,
	The Westinghouse Brake Co., Ltd.
	82 York Road, King's Cross, London, N.

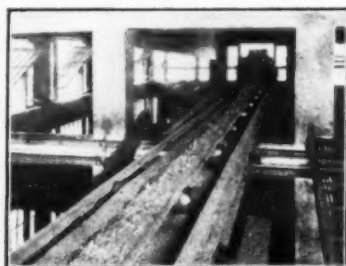




Inclined Pan Conveyor



Platform Conveyor for Boxes



Belt Conveyor over Bins

CUT HANDLING COSTS

And Release Labor for Other Uses

THERE are thirty-two different industries whose leading concerns have replaced manual labor with elevating and conveying machinery. Whenever a quantity of material in bulk or packed is continuously moved from point to point in Mine, Mill, Factory, Quarry, Warehouse—there is an opportunity to save labor by installing

WEBSTER

ELEVATING and CONVEYING MACHINERY

Are you missing a chance of this kind? Forty years of experience in design and manufacture are at your service.

Suggestions and Estimates on Request

The Webster M'f'g Company
Chicago Tiffin, Ohio New York



Cutting out waste in conveying

From the far end of the warehouse these boxes of glass jars are conveyed swiftly, safely, economically into the car. One man loads them on; another takes them off. No cost for power—gravity does it all. The

MATHEWS
SPEED ECONOMY
GRAVITY ROLLER CONVEYER

will speed up the work in *your* plant, reduce the number of your employees, minimize breakage and cut your conveying costs to the bone. By the force of gravity alone, these steel ball-bearing rollers will carry your product through every stage of manufacture until the finished article is delivered into the car, ready for shipment.

The Mathews Gravity Roller Conveyor can be adapted to practically any conveying need, temporary or permanent. Let our experienced engineers estimate on a conveying system especially adapted to your needs. No obligations—write us now.

MATHEWS GRAVITY CARRIER CO.
114 Tenth St., Ellwood City, Penna.
Branch Factories: Toronto, Ontario—London, Eng.

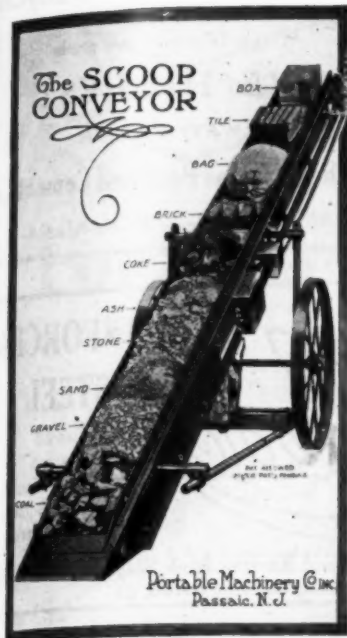
THE cost of handling material around your plant—Does it make a perceptible dent in your profits—Then write

C. W. HUNT CO., Inc.
WEST NEW BRIGHTON, N.Y., U.S.A.
501 Fifth Ave., N. Y. City Fisher Bldg., Chicago, Ill.
710 14th St. N. W., Washington, D. C.

Tell them your problem—and ask for *any* or *all* of the following catalogues:

Coal Handling Machinery.
Dumping Tubs and Grab Buckets.
Automatic Railways.
Cable Railways.
Nelsseless Pivoted Bucket Conveyor.
Electric Locomotives—narrow gauge.
Storage Battery Industrial Trucks.
Stevedore Hoisting and Transmission Rops.

They describe fully our complete line of machinery for the economical handling of bulk material, and undoubtedly contain information which will be of value to *you*.



**WILL
DO
THE
WORK
OF
FROM
6
TO
12
MEN**

Hundreds of manufacturers are now using the Scoop Conveyor to load and unload cars, trucks and wagons and to stack into storage piles or bins.

Ask for further information

PORTABLE MACHINERY CO., Inc.
PASSAIC, N. J.

"He Put a Feather in His Cap"

That is what Yankee Doodle did.
And so can you.

It is so easy to do, that it is a wonder you have not done it long ago.

You know what trouble always hangs around the electric elevators in your plant.

"Consarn it! the blamed old rattle trap is on the bum agin!" are the words you hear wafted through the mill from day to day.

"What! Ten dollars a day for hunting the juice and adjusting the elevator—\$250 for repairs—outrageous!" are the words you hear wafted through the office from month to month.

And then one day quiet, little old Smith calls attention to that "Hook 'er to the Biler" ad and says,

"Why don't you get Ridgway's dope and see what he has to say about elevators—don't cost anything to find out, does it?"

And after a while the concern gets Ridgway elevators, and out from under the elevator curse.

"Say, that was a great day when we 'Hooked 'er to the Biler,' wasn't it, boys?" said the "Old Man," "How did we come to get on it?"

"Oh, Smithy knew about it and put the concern in touch with Ridgway the builder."

"Smith is the kind of a man to have around the place. He seems to be up to date and knows something," says the "Old Man."

Moral: To go up in the concern, just

"Hook 'er to the Biler!"

The Ridgway & Son Co.

COATESVILLE, PA.

Elevator Makers to Folks Who Know



Elevator in Large Soap Factory in Jersey City



Double Geared



Direct Acting

ELEVATORS

G. S. Montgomery
Kansas City, Mo.

Passenger and Freight
Electric, Belt and Hand Power
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ELEVATORS MOFFATT MACHINERY MFG. CO.

HAND—BELT—ELECTRIC
AND HYDRAULIC

MACHINISTS AND FOUNDERS
CHARLOTTE, N. C.

American Elevators Built by AMERICAN ELEVATOR & MACHINE CO. INCORPORATED LOUISVILLE KY.

SAND FOR CONCRETE

Washed and Screened. Equipped to fill large orders. Prompt Service.

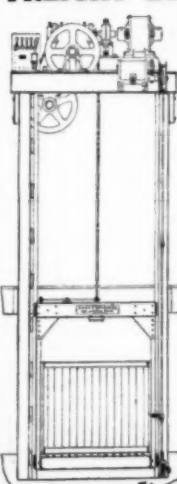
MACON FUEL & SUPPLY CO.

MACON, GA.

Agents Standard Portland Cement.

If you wish to keep posted on the progress of the South, read the **MANUFACTURERS RECORD**
Price \$5 a year, or six months for \$2.50.

FREIGHT ELEVATORS



ELECTRIC and HAND

Dumbwaiters
Electric and Hand

Newspaper
Lifts, Auto-
matic Plate
Droppers

Guide Lubricators
Elevator Safety
Switches

Write for circulars
The
Owen T. Snyder
Company
Columbus, Ohio

Standard for a third of a century.

Passenger and Freight.

All Powers.

TURNER ELEVATORS

K. C. ELEVATOR MFG. CO.

(Established 1881)

2601-3-5-7 Madison Ave., Kansas City, Mo.



"Simplex" CHAIN HOISTS

require a minimum amount of power to hoist a load, have an automatic brake, and last, but not least, have

Two Speeds—
Cranes
Tramways

Catalog Free

J. G. SPEIDEL

READING, PA.





The picture shown above is very simple—merely a motor-truck and a concrete road;

And yet, simple as it may appear, it typifies at once the South's greatest need and greatest opportunity—the readjustment of the road surface to the new freight vehicle for the hauling of heavier loads with greater dispatch at reduced power cost and lessened wear on the road.

The above view duplicated on all main highways in the South will mean an unparalleled development in agriculture and commerce.

Public spirited citizens desiring to inform themselves on how to permanently readjust roads to meet new conditions in their respective communities may obtain such information by addressing:

Standard Portland Cement Co.
BIRMINGHAM, ALA.



**A
Concrete
Road
Is
Permanent**

SAVES GASOLINE

CONNECTS
FARM WITH CITY

NO MUD NO DUST

Write us for free copy
"Concrete Highways"

DIXIE PORTLAND CEMENT CO.
CHATTANOOGA, TENN.

You Who Are About to Build

For Permanent Construction
To Eliminate Maintenance

Use Clinchfield Portland Cement



**CLINCHFIELD PORTLAND
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We produce only one grade

THE HIGHEST

ALWAYS UNIFORM

Southern States Portland Cement Co.

Office and Mills—ROCKMART, GA.

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**REINFORCING
STEEL**

Plain Round
Plain Square
Deformed Round
Deformed Square
Twisted Square

LACLEDE STEEL CO., Federal Reserve Bank Bldg., ST. LOUIS, MO.
Works at Madison, Ill. and Alton, Ill.

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A recognized necessity in modern buildings
of the office, hotel and apartment class.

Send for circulars and full information to the sole makers.

CUTLER MAIL CHUTE CO.

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Marine "VITA" Glue

Sets and stays in seams.

Has tenacity and vitality.

For samples and prices, write to

BINNEY & SMITH COMPANY

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WIRE SPRING COILING MACHINES

of every description, including UNIVERSAL COILERS in 8 sizes, handling
oil-tempered wire from .004" to 3/8" diam.

WIRE NAIL MACHINES

Smoothly running machines with balanced mechanical motions and no rotating
cams. Practically noiseless in operation. Built in 5 sizes—handling wire
from No. 18 to 3/8" diam.

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CINCINNATI
IRON and
STEEL
COMPANY**
CINCINNATI,
U. S. A.
**STEEL
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CISCO SERVICE**





"Straight, stiff, flat sheet reinforcement"

For Heavy Mesh



"STEELCRETE" is the only expanded metal in the United States that can be procured in a 16-ft. sheet or with as heavy a sectional area as 1 sq. in. per ft. width.

Write for the latest
"Steelcrete Products" Book

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HAVEMEYER BARS

"Every Pound Pulls"

By Using

HAVEMEYER BAR SERVICE

YOU GET

IMMEDIATE SHIPMENT

OF YOUR REINFORCING STEEL

FROM OUR NEAREST WAREHOUSE

Birmingham warehouse carries the largest stock of reinforcing bars in the South—all sizes—rounds and squares.

Address Birmingham Office.

CONCRETE STEEL COMPANY
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AGENCIES AND STOCKS IN PRINCIPAL CITIES



FAST WORK

—WITH—

SPRACO

Pneumatic Painting Equipment

Invaluable for use in shipbuilding, bridge and all structural work. In fact, the Spraco Equipment can be advantageously used for applying all kinds of

liquid coatings. Painting a ship is a long, tedious, time-consuming job if done with brushes and paint pots.

Spraco Pneumatic Painting Equipment will enable you to save 50% in time and labor costs and do the work better than in the old way.

Send for catalog and get the details. You will find it mighty profitable.



SPRAY ENGINEERING CO.

ENGINEERS and MANUFACTURERS

43 Federal St., BOSTON, MASS., U.S.A.

Steel for Service

Orders for Ship Steel

The discussion of this subject was started in Carnegie Steel Company's advertisement in the July 11 issue of the Manufacturers Record.

The importance of it to both Shipbuilders and Steelmakers, and above all ultimately to the United States, warrants further mention.

The Hull Designer and Draftsman should aim to use the minimum number of different kinds of sections. The saving of time is often of much more importance than a few pounds of material.

Further, the designer should adhere strictly to the sections most easily procurable from the mills from which his company purchases its material.

Carnegie Steel Company urges again that all men interested in this subject familiarize themselves with the contents of pamphlet

"Structural Steel for Ships"

which can be obtained by application.

Besides, this company will be very willing to give any information on this subject to any user of steel, regardless of what steelmaker may have furnished the steel.

The mark of
quality



It protects the
user

Carnegie Steel Company

General Offices, Pittsburgh, Pa.

1027

MERCHANT BAR IRON

— FOR —

Shipbuilding, Dry Dock and Other General Work

We Invite Your Inquiries and Specifications

The Milton Manufacturing Company

MILTON, PENNSYLVANIA

Type
Lack
S

The foll
and sizes
sheet pile

Suitable
pecially co
tensional a
of the pile
is much su
in sewer a

For light
work in c
trenches, e

Prefer
strength of
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very thin
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thickness o
the arches
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the back o
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in connect
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flange acts
the section
means for
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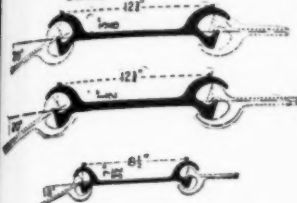
Complete
series of any

XUM

Types and Sizes of Lackawanna Steel Sheet Piling

The following sections offer types and sizes to economically meet any sheet pile construction problem:

Straight-Web Type



Suitable for general work and especially constructions requiring high tensional and compressive resistance of the pile section. The smallest size is much superior to wooden sheeting in sewer and trench work.

Plate Type



For light cofferdams, permanent work in cut-off walls, core walls, trenches, etc.

Arched-Web Type



Preferable where transverse strength of the pile is of primary importance, as in braced or tied constructions. A wall of this piling is very thin in proportion to its transverse strength, having no greater thickness over all at the centers of the arches than the over-all thickness of the interlocked joints. Flattening the back of the web furnishes a long, straight contact with the waling timbers.

Center-Flange Type

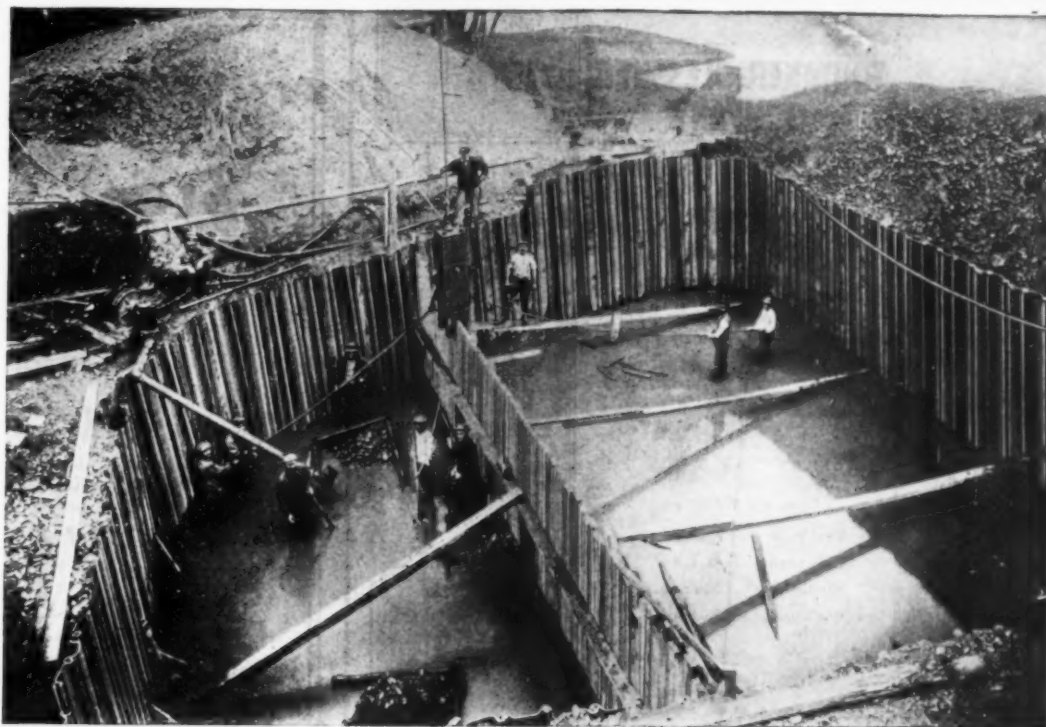


For constructions requiring high tensional and compressive strength, in connection with a fairly high transverse strength. The center-flange acts as a stiffener, increases the section modulus and furnishes means for attaching transverse ties, braces, etc.

Lackawanna Protected Steel Sheet Piling

Best for permanent installations exposed to severe corrosive action. The protective facing of concrete, adhesively and mechanically bonded to the piling, offers a permanent and perfect protection against corrosion and can be driven down with the steel. Waterproof and rigid.

Complete dimensions, weights, and properties of any section sent on application.



Double Use of Lackawanna Steel Sheet Piling—First As a Cofferdam and Then as Permanent Protection

The concrete intake constructed in the Chemung River for the power plant of the Elmira (N. Y.) Water, Light & Railroad Co. had to be built at a location where the bottom was mostly washed river gravel.

For unwatering the site of the foundation at the river end, the contractors, United Gas & Electric Engineering Corporation of New York, utilized the cofferdam shown above, with Lackawanna 14x3/4-in. Arched-web Sheet Piling in cantilever to the extent of about 10 feet.

This sheet piling was driven to place without difficulty.

The performance of this sheet piling during excavation and completion of the concrete work was highly satisfactory, and after the entire intake was completed, the sheet piling was driven down flush with the surface and left in place as a permanent protection against undercutting of the structure.

Lackawanna Steel Sheet Piling permanently placed in this way to serve a useful purpose after a first temporary installation is properly chargeable to the owner as material expenditure. This permits the contractor to use it as a construction tool at no expense to himself.

Let our engineers advise you free and freely on any work where the use of steel sheet piling is in question. Ask for our book, Lackawanna Steel Sheet Piling.



Lackawanna Steel Company

General Sales Office and Works: LACKAWANNA, N. Y.

Atlanta Buffalo Cincinnati Detroit Philadelphia San Francisco
Boston Chicago Cleveland New York St. Louis Havana

Licenses for the manufacture of Lackawanna Steel Sheet Piling: For Great Britain and British Colonies in the Eastern Hemisphere, Cargo-Fleet Iron Co., Ltd., Middlesborough, England. For France, Italy, Spain, French Colonies and Protectorates, Italian Colonies and Spanish Colonies in the Eastern Hemisphere, Cle Des Forges & Acleries de la Marine et d'Homecourt, Paris, France.

355

DESTROYED

YOUR plant. It will take months to rebuild and install new machine. And in the meantime, think the production loss. You may have a chance—having four men as RELIABLE as clock work—M. J. Newham & Co.

NEWHAM & CO.
Makers of the World's Best Clocks
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1000 Market St. SAN FRANCISCO

Southern Minerals Corporation

Miners and Shippers of

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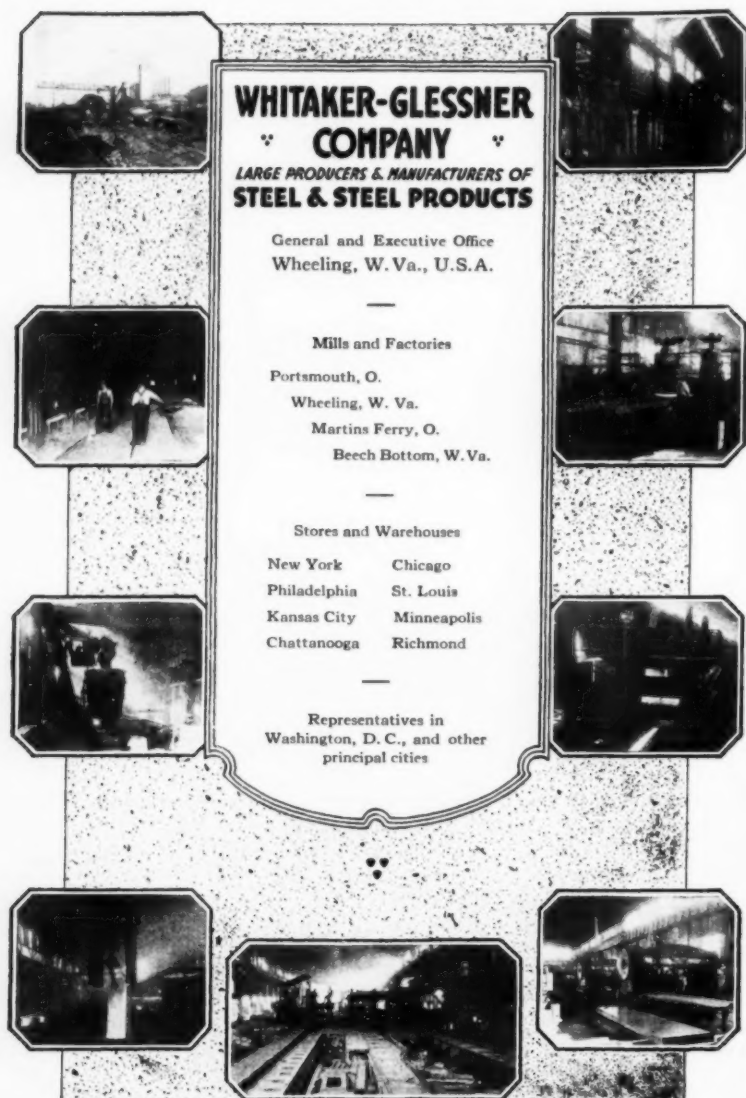
PROPERTIES: Elizabethton, Carter Co., Tenn.

OFFICES: 20 Beacon St., Boston, Mass.



IMPERIAL WELDING AND CUTTING EQUIPMENT
OXY-ACETYLENE PROCESS

Welds everything in metal—cuts anything in steel or wrought iron. Excels in Speed, Safety, Efficiency and Economy. Write for Free Catalog. The Imperial Brass Mfg. Co., 507 S. Racine Ave., Chicago



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LARGE PRODUCERS & MANUFACTURERS OF
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New York Chicago
Philadelphia St. Louis
Kansas City Minneapolis
Chattanooga Richmond

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Representatives in
Washington, D. C., and other
principal cities

Jones & Laughlin Steel Company

General Offices :
Jones & Laughlin Building
PITTSBURGH

MANUFACTURERS OF
**VARIOUS
STEEL PRODUCTS**

WORKS :
South Side Works Keystone Works
Eliza Furnaces & Coke Ovens Soho Works
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BRANCH OFFICES :
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New York Philadelphia San Francisco
St. Louis Washington

TRUMBULL OPEN HEARTH

Ingots, Blooms, Billets, Slabs, Sheet Bars

Black and Galvanized Sheet Steel

Galvanized and Painted Formed Roofing Products

Coke Tin Plate

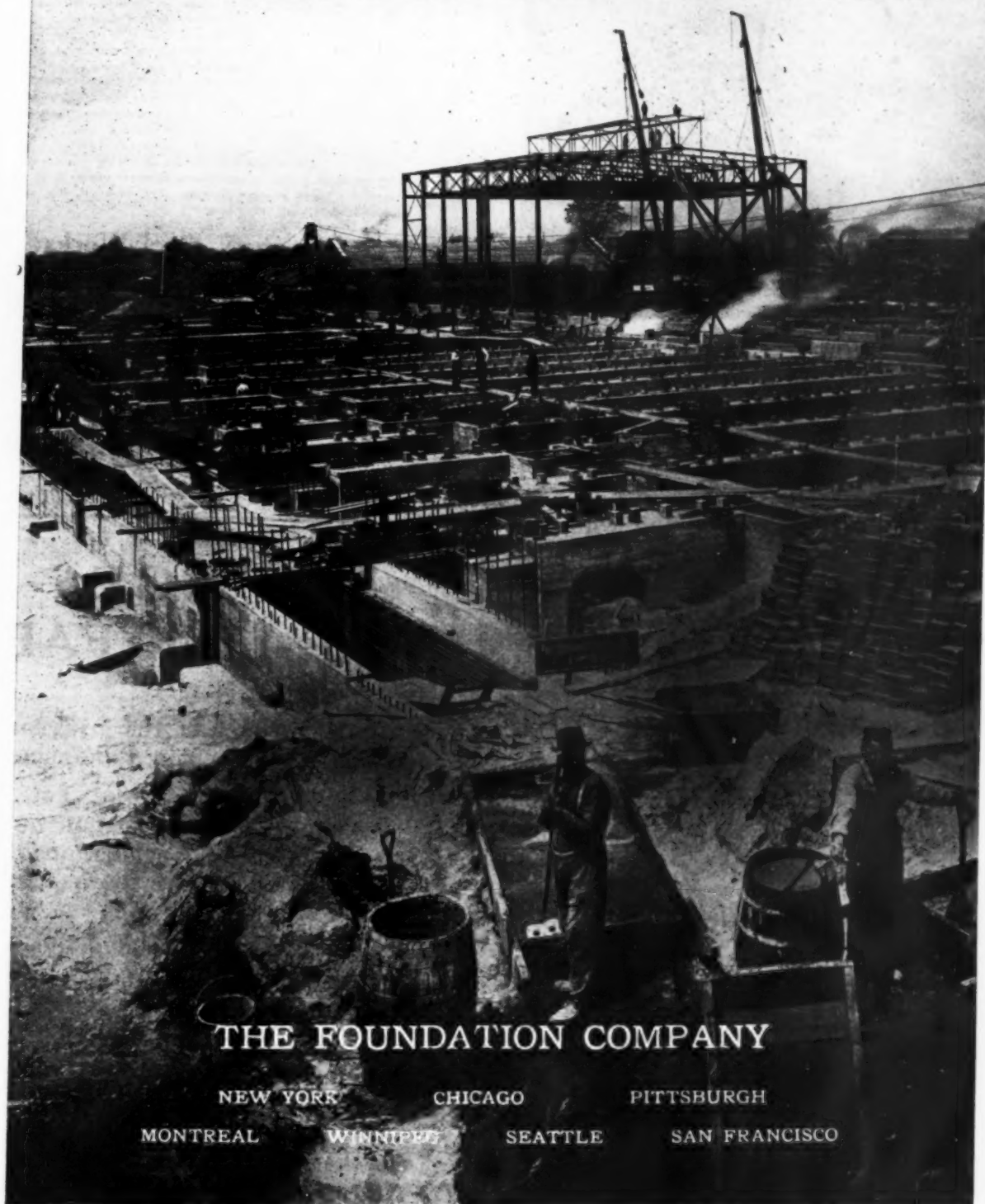
Hot and Cold Strip Steel

THE TRUMBULL STEEL COMPANY

GENERAL OFFICE : : : : : WARREN, OHIO

INDUSTRIAL PLANT CONSTRUCTION

3rd FOUNDATIONS FOR NICKEL ORE CALCINER



THE FOUNDATION COMPANY

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SAN FRANCISCO

Keep Them Outside



Anchor Post Fences

No doubt you are looking for men who will enter by the gate in broad daylight and seek employment. But you must protect yourself against those whose password is stealth and whose motives are theft, arson or sabotage.

ANCHOR POST FENCES of Chain Link Woven Steel

upset the deepest laid plans of the craftiest plotters to force an entrance into your plant or your yards day or night.

Every movement of suspicious looking characters is easily discernable through the woven steel barrier of an Anchor Post Fence yet the mesh is close enough to prevent climbing.

The thick-set barbed wire topping discourages scaling and the structural strength of the fence throughout makes for permanent security and illimitable life.

A request for our Factory Fence Catalog is a request for the expression of expert fence fabricators and erectors

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BOSTON
79 Milk St.

2216-G

STEEL WHEN YOU WANT IT

"BLUE RIBBON" WARRANTED CRUCIBLE CAST TOOL STEEL

This is true Sheffield Steel made to Sheffield analyses by Sheffield steel makers under Sheffield expert direction. This is a general purpose, straight carbon tool steel double refined and double annealed, of high temper and uniformly high grade, particularly adapted to the making of such tools as:

Lathe and Planer Tools	Reamers and Broaches
Taps and Dies	Threading Dies
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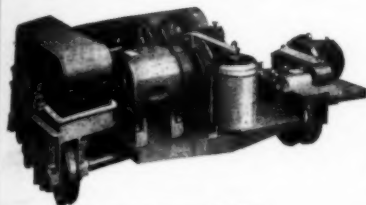
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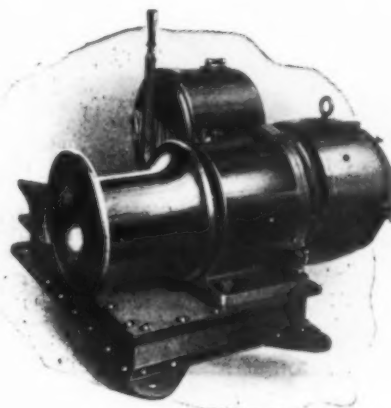
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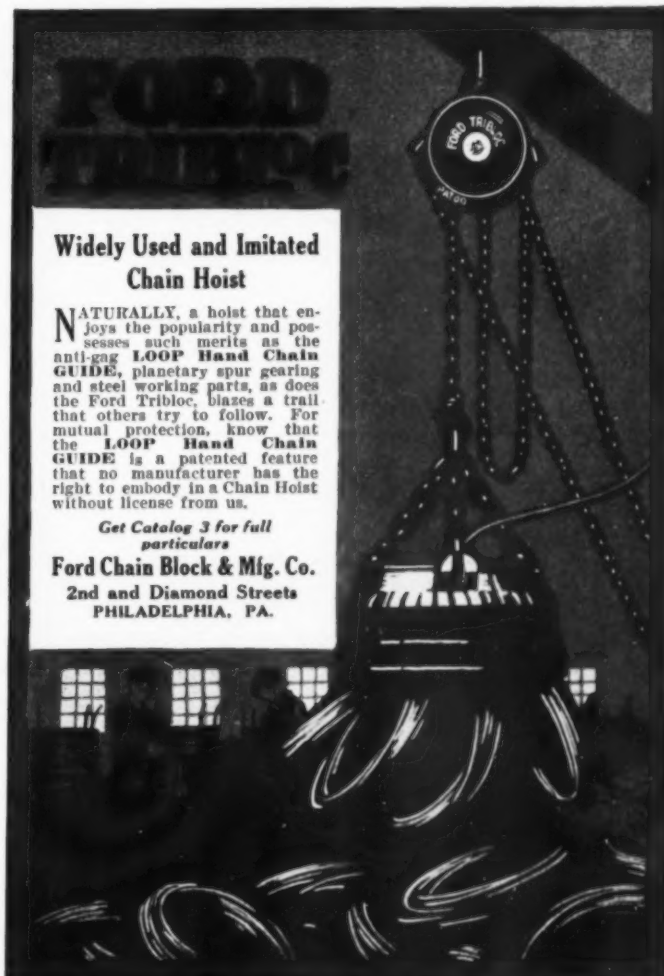
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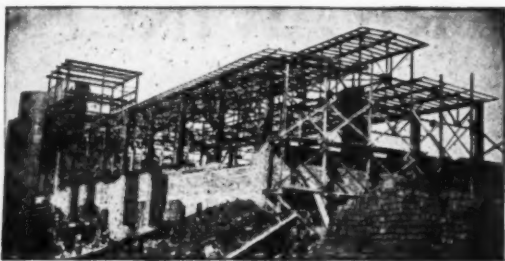
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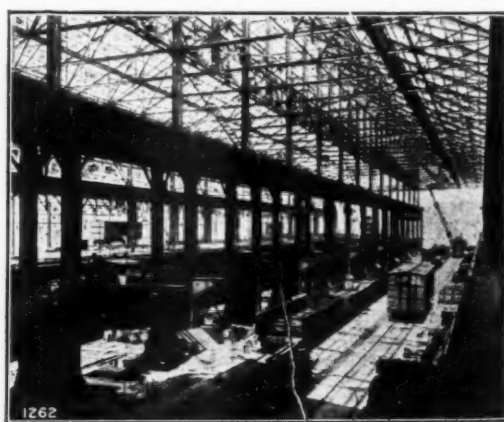
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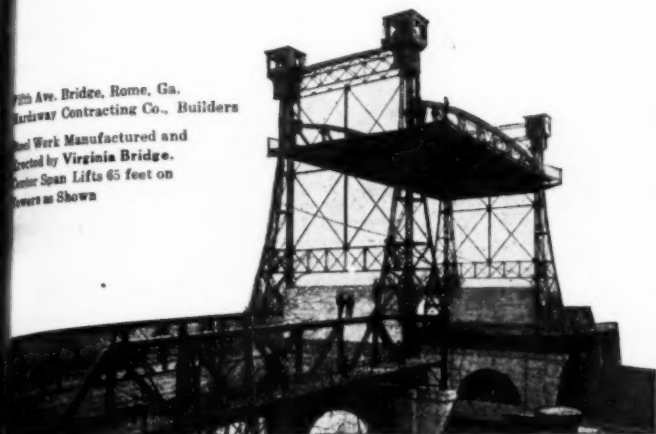
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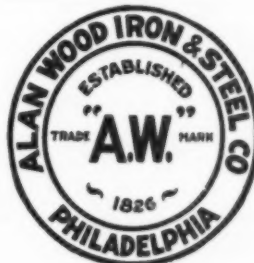
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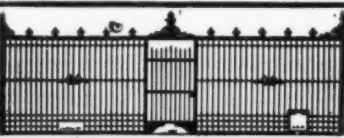
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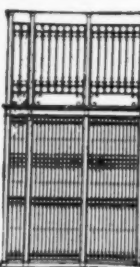
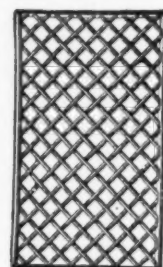
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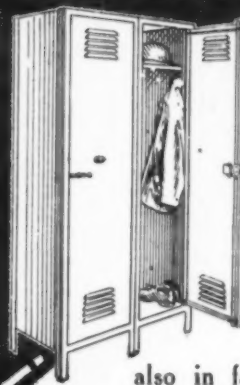
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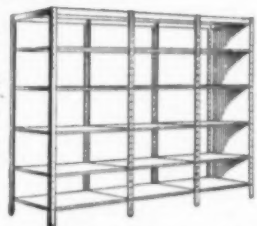
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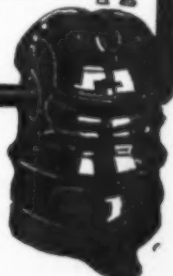
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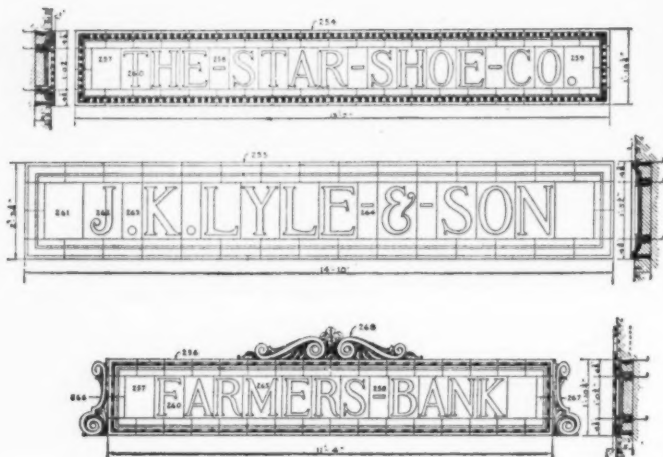
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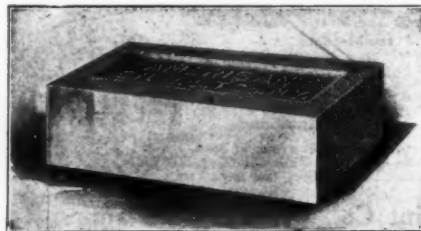
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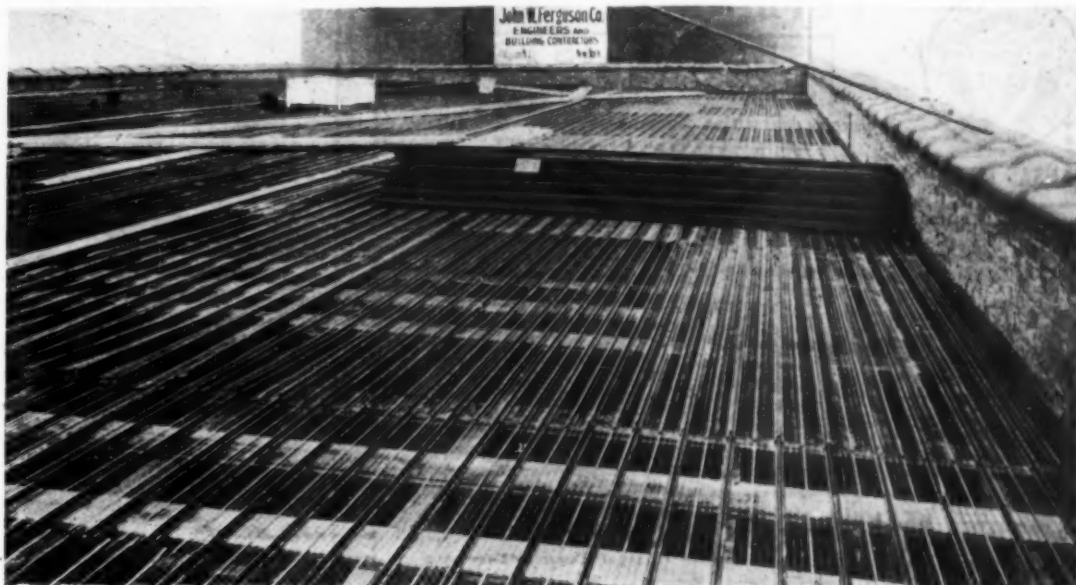
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This is a good illustration of how Ribplex with its strong ribs can take the place of heavier reinforcement.

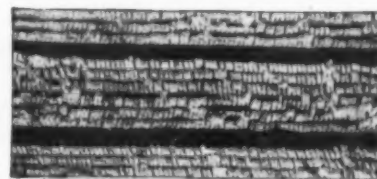
In the same way Ribplex can take the place of studding in non-bearing walls and partitions.

The strength and light weight of Ribplex permits a much wider spacing of joists or studding and also a saving in beams, girders and columns.



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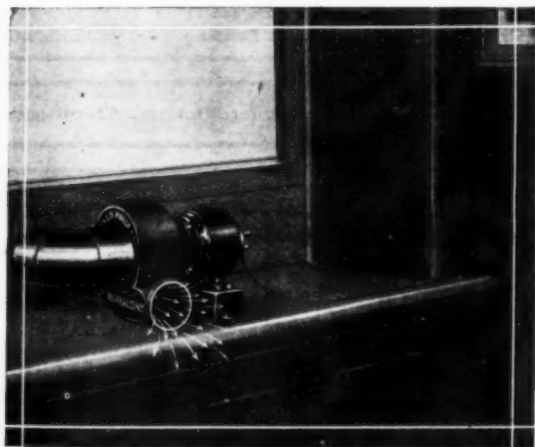
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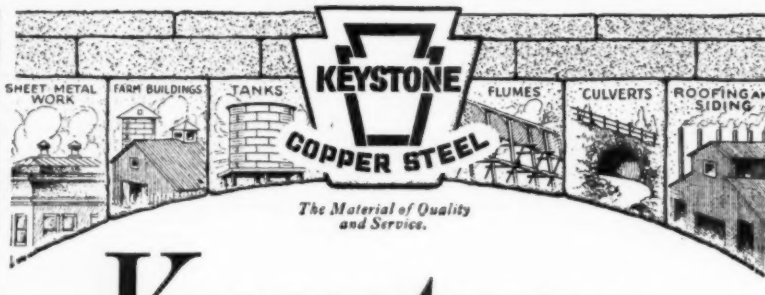
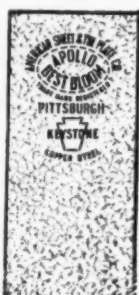
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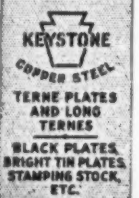
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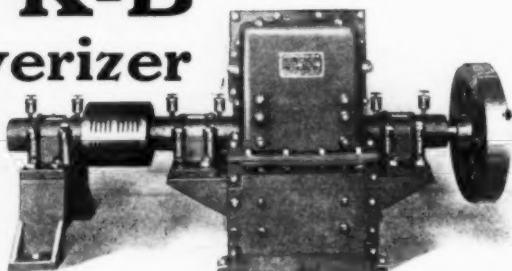
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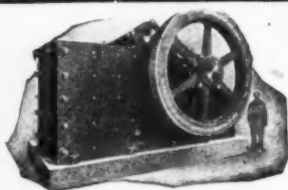
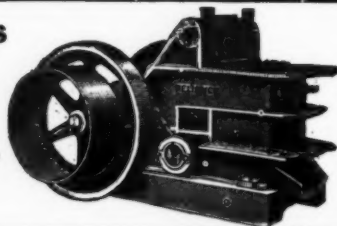
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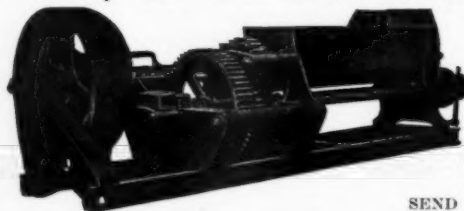
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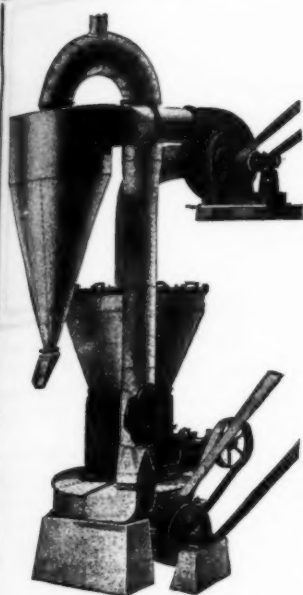
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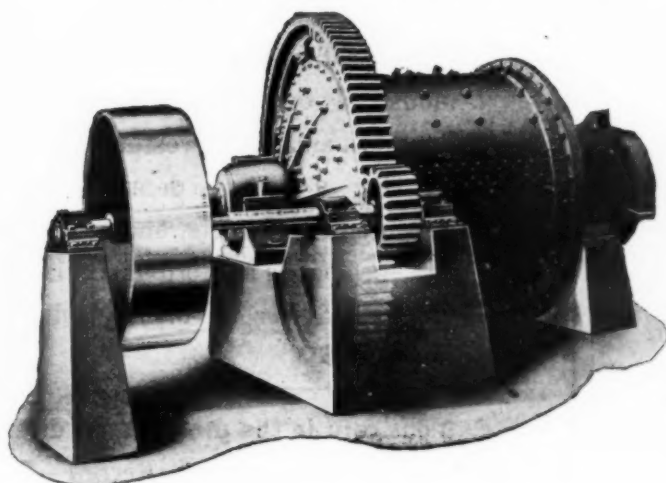
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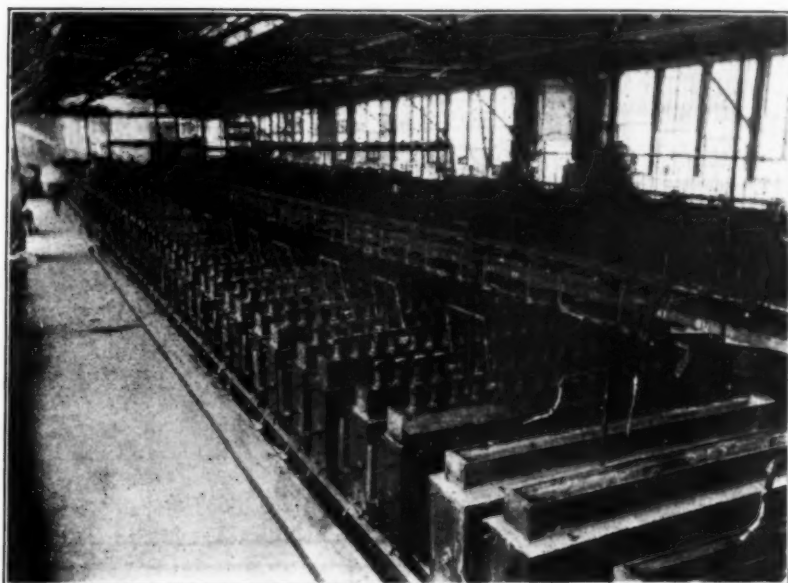
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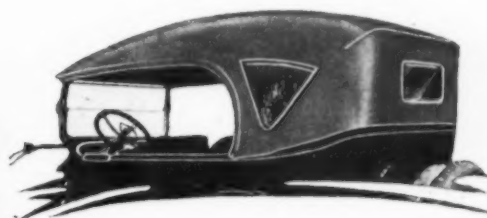
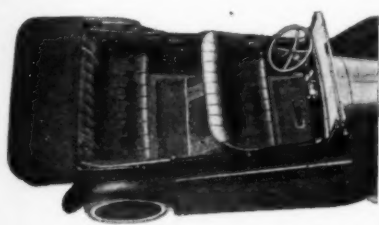
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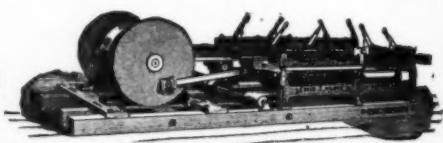
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**"THE GOD OF BRUTE FORCE MUST THIS
TIME FOREVER BE BROKEN AND
BURNT IN ITS OWN FURNACE"—LLOYD
GEORGE.**

WITH a clearness of statement not surpassed
by any called forth by this war, Lloyd George,
in closing an address, uttered the statement, after
referring to the wars which Germany has waged:

**"The god of brute force must this time forever
be broken and burnt in its own furnace."**

That has meaning, vigor, expression. It behooves
the Allies and America to carry it out.

In closing his address, Lloyd George, after telling
of the sacrifices which had been made by the people
of the countries which are fighting Germany in be-
half of civilization, said:

"Germany has waged three wars, and each time she
has added through those wars to her strength, to her
power, to her guidance, to her influence, and each suc-
cessive war she has waged has inevitably encouraged
her on to the next. If she had had one check you would
not have had this war. If this war succeeds in adding
one square yard to her territory, of adding one cubit to
her stature, of adding a single iota to her strength, it
will simply raise her idea of militarism, for which the
world is being sacrificed at the present moment.

**"The god of brute force must this time forever be
broken and burnt in its own furnace."**

"COLVER IS REPEATING."

THE BLACK DIAMOND, an exponent of the coal
trade, under the heading "Colver Is Repeating,"
makes the following statements, which come under
the class of being exceedingly interesting if true, and
we believe the Black Diamond is generally accounted
as a publication of great reliability.

The Black Diamond's editorial is as follows:

"A year ago, coal men, through Mr. Peabody, agreed
with the Government, through Mr. Lane, on a program
for coal. W. B. Colver of the Federal Trade Commis-
sion—who wanted to control coal—went to Mr. Baker
with a story and had this program overturned.

"A year later, almost to the day, the coal men again,
through Mr. Wheelwright, agreed with the Government,
through Mr. Garfield, on another program. Again Mr.
Colver, still wanting to control and, because of jealousy,
eager to discredit Mr. Garfield, has started to overturn
this new program. This time he has used as a vehicle
a report on profiteering by the Federal Trade Commis-
sion.

"There is danger that the slate will again be broken.
This will bring the possibility of another winter of fuel
distaster.

"We can take some comfort in this. The present
program in coal is that of the President. Mr. Colver's
personal ambitions to succeed Mr. Garfield cannot set
aside a fixed purpose of Mr. Wilson."

**WAKE UP, SPIRITUAL LEADERS OF
AMERICA, ERE IT BE EVERLASTINGLY
TOO LATE!**

DISCUSSING "The War and Spirituality," the
Baptist World of Louisville, says:

Christian faith justifies itself for the present war
against autocracy on many grounds. The ruthles-
sness of German militarism has awakened all the deep
resentment of Christian men and women among the
allied peoples. That resentment is righteous, and it
is expressing itself in ways which will ultimately rid
the earth of the German ideal. But an attitude of
resentment, cherished for a long time, nurtured and
fed by the constant recurrence of hideous deeds of
cruelty, tends to produce an extremely one-sided de-
velopment of Christian character. And indeed, the
resentment tends to become so overfed that we are
in danger of forgetting justice and mercy.

It is always difficult to distinguish clearly the line
which separates righteous indignation from unright-
eous hate, and a long cherished feeling of resentment
against wrong may subtly and gradually take on the
form of unrighteous hate. Nothing can be more right-
eous, of course, than hatred of sin and wrong in all
its form, but the Christian command that we "love
our enemies" is not abolished even during war. It
is impossible to treat on any other terms other than
those of opposition and uncompromising military com-
bat with the institution embodied in Prussian mili-
tarism and the world will have to hate them to the
end.

But it will be very unfortunate if Christian people
come to imagine that their loyalty to their govern-
ment in America can be kept alive only by hatred
of Germans. It is not the highest type of loyalty
which feeds itself on such hate, and which is unwilling
to do justice even to an enemy. It is not the highest
type of loyalty which has to be fed upon misjudgment
of others and unwillingness to recognize good qualities
even in an enemy. The loyalty, in other words, which
becomes blind is sure to lead to hurtful extremes.

Many of our German fellow-citizens in America
have been misjudged by their neighbors merely be-
cause they were Germans. The writer recently knew
of an instance where a German lady, in a certain
neighborhood, took particular pains to explain to the
neighbors the attitude of her family. There had been
nothing whatever in their conduct to indicate disloyalty
to the government, but the neighbors had turned a
side to them which clearly evinced their own suspi-
cions. This was perfectly natural, perhaps unavoid-
able. It is very hard, in times of stress like these, to
be fair-minded. But the duty to be fair-minded is
just as binding today as it ever was.

It is very difficult to recognize good in people who
belong to a race conducting a war in an unscrupulous
manner, but this does not alter Christian obligation.

We are writing these words because we realize that
Americans are in real danger at this point; that lead-
ers of thought may be betrayed into extreme posi-
tions, may become obsessed with such antagonism
and implacability in their attitude toward those they
oppose in war that the fountains of the spiritual life
will be dried up. It is a real danger. Let us avoid it.

The position taken by the Baptist World in this
statement is unwise and unfortunate. Its sugges-
tion "of unwillingness to recognize good qualities
even in an enemy" when the enemy in which we
are expected to recognize good qualities is Germany
or the German people, shows that that paper has
not at all grasped the significance of this war nor
the depths of its horrors. We might as well be
asked to recognize good qualities in the devil him-
self as to be asked to recognize good qualities in any-
one who upholds Germany in this war. If any
"German fellow-citizens in America have been mis-
judged by their neighbors merely because they were
Germans," they are themselves to blame. If they
had been aggressively for honor and integrity and
morality, their neighbors would not have blamed
them. If in this world crisis they have upheld the
immorality of Germany, if they stood for the dishonor
of the Lusitania, if they stood for the dishonor of
Germany rather than the honor of America, they

do not deserve to be recognized as decent human
beings by any American Christian.

**No pro-German in thought should be permitted
to continue in any church of God in this country,
for the pro-German in thought is an ally and a co-
worker with the vilest powers of hell ever let loose
on earth.**

Americans are not in real danger, as the Baptist
World says, from failure to recognize good in peo-
ple belonging to a race conducting war, for there
are no good people belonging to that race who up-
hold Germany. The very fact that any man or
woman upholds Germany in this war or gloried
in the sinking of the Lusitania is proof in itself
that they should not be recognized in business, so-
cially, or in church, by any God-fearing man or
woman. The real danger has been that Americans
would not get it deep down into their souls that
there must be "antagonism and implacability" in
their attitude toward those whom they oppose in
war to the utmost extent of their power, mentally,
spiritually and physically. But thank God Ameri-
cans are now beginning to understand the full
truth and are not likely to follow the mistaken doc-
trine of the Baptist World!

The Baptist World in this editorial is teaching a
false doctrine unworthy of any Christian man in
this country who realizes the horrors of this war,
of this "made in Germany war," which is a "made
in Hell war," and we would heartily commend to
the editor who wrote that article a study of "Ger-
manism and the American Crusade," by George D.
Herron. In that book he may perchance find en-
lightenment as to the meaning of the war. He may
catch a new vision as to why every man and woman
who upholds Germany, or who in the slightest is
pro-German in thought must be fought to the ut-
most power spiritually, mentally and physically by
every man and woman in America who upholds the
religion of Christianity and who honors womanhood
and who would save the world from being overrun
by a power which so far as man can see is but the
earthly expression of Hell turned loose on earth
through Germany.

Billy Sunday once said that if you could turn
Germany upside down you would find stamped on
the bottom "Made in Hell." This might be reversed,
for if you could turn Hell upside down you would
find stamped upon it "Made in Germany" and made
by Germany and of Germany. They are one and
the same thing and every man who suggests that
there is danger of the American people becoming too
intense in their opposition to Germany or to Ger-
man-born-Americans who are not enthusiastically
loyal-to-the-core-Americans, makes a mistake.

We absolutely dissent from the thought expressed
by the Baptist World that the Christian command
that we "love our enemies" applies at all to loving
the Germans. We cannot conceive that the Great
Divine Fighter against sin and crime, if on earth
today, would not be leading the forces of righteous-
ness for the utter overthrow and destruction of
Germany as the embodiment of all the sin that
Satan can suggest or devise. We were told to "love
our enemies," that is to love our individual enemies;
but we were never told to love the enemies of God.
We were never told to love Satan.

We were never told to look with love upon Hell
and its activities, or upon those who are constantly
and unceasingly fighting against the work of Christ
on earth when he said:

**"Ye serpents, ye generation of vipers, how can
ye escape the damnation of hell."**

Was there any love in that sentence? Was it

not a seathing arraignment of those who had willingly and deliberately year after year fought the Right, and yet none of the crimes charged by the Divine Teacher against the hypocrites of that day whom he thus so vigorously assailed were comparable in the slightest degree to the atrocious crimes committed by Germany.

Those who teach that we must love Germany are teaching a false doctrine, a doctrine we believe contrary to the whole life and spirit of the teachings of Christ Himself.

ELIMINATE WASTE OF ENERGY, TIME AND PROPERTY.

THE Norfolk & Western Railway has sent out a circular to its patrons embodying remarks and suggestions of great value in the world crisis. It says:

Under existing war conditions conservation of materials and energy is of grave importance. All of us alike desire to do our utmost to bring this about. To that end the United States Railroad Administration calls attention to the importance of greater care in the packing and marking of freight.

The strength of containers has not kept pace with the increased train tonnage, double loading of cars, heavier engines, speed in switching and handling cars, automatic couplers and air brakes; therefore stronger packages are absolutely necessary in order to insure safe transportation and delivery at destination. Loss of and damage to freight, duplicate transportation and expense cannot be avoided under necessary operating conditions today unless freight containers generally are increased in strength and properly stowed and braced in cars.

The proper marking of freight is likewise necessary. May we ask that you issue special instructions to insure it?

This means that boxes, barrels and crates must be securely nailed and that they must be sufficiently strong to bear the strains of the weight within them, also that bags, casks, drums and other receptacles used for freight must similarly be substantially closed, and, furthermore, that they must be adequate for the purposes for which they are employed. Close attention paid to this will avoid much loss and delay. The railroads have for years called attention to the careless manner in which considerable freight is shipped, with the result that goods are stolen or otherwise lost, or, if they are not lost, they are damaged more or less seriously. Slipshod marking of packages is another old evil.

Saving of time and energy is as much in the way of winning the war as any other effort directed to that end. Every bit of carelessness, every error which could easily be avoided by a little consideration on the part of someone, is just that much thrown into the machinery of business to hinder its effective operations. To make haste without judgment and painstaking is to slow down movement in the end, and this effort of the railroad company to obtain the co-operation of its patrons for the better handling and movement of freight deserves to be studied by individuals other than those directly concerned in shipping goods, for the principles of business which it enunciates are applicable in many directions.

Notice to Readers.

Our readers will please bear with patience the long delays which sometimes occur in publishing accepted matter or the utilizing of suggestions which come from all parts of the country. While the Manufacturers Record welcomes suggestions on all the problems which this nation is now facing, it is not possible for us to use all of these suggestions nor to publish promptly all of the accepted articles. The limit of space and of time makes it difficult to meet all of these conditions.

Our readers are also asked to remember that the delays which often take place in the delivery of the paper are not due to our office, but to the congestion of business in the postoffices and on the railroads.

Germanism and the American Crusade

By GEORGE D. HERRON.

But there is another and darker advantage which Germany holds, and it is an advantage more menacing to our essential humanity than all the might of her malific arms. Germany is today deliberately and systematically undermining the moral foundations of the world in order to destroy its resisting power and subdue it unto herself. Nor today only: she had plotted this moral pillage of neighbor-nations before the war began—as a preparation for the war indeed. And so successfully is she now pressing forward her unclean propaganda, her occult campaigns of seduction and terrorization and coercion, that Ludendorf has publicly boasted of the conquering results.

It is but another and viler war in which Germany is thus engaged—a psychic war, in fact, and a war mayhap pregnant with universal delusion and disaster, with the reduction of mankind, for a time, to a woeful condition of spiritual squalor. It is a war whose weapons are indeed fashioned in hell—a war to remove truth and honor, fidelity and good faith, from political society and the intercourse of nations. It is a war so completely organized, so sinister and bestial, so subterranean and sulphurous, that its vast and varied enormities are beyond the power of non-German men and nations to accredit or imagine. So starkly monstrous its will and its ways are, so corrupting to whoever or whatever becomes the object of its advances, that the world simply will not believe the thing exists. There is no parallel or antecedent for it; there has never been, so far as history knows or reveals, a national mind or method with which the German penetration can be compared. Other imperialisms, such as Rome and England, have betimes used bribery and corruption in order to hold subject peoples. But with these prior imperialisms, along with their despotisms and debaucheries of vassal rulers, went also an element of moral dignity, a degree of moral addition and development, and sometimes a profound regeneration and ennoblement of the conquered tribe or nation. There has been nothing in former imperialist procedure that even approached the spiritual debasement, the political ruin, that inevitably comes to each people that admits the German to its midst. Julius Caesar's descriptions of German methods, fifty years before the birth of Christ, are as if they were written today. He reports the Germans as "that treacherous race which is bred up from the cradle to war and rapine." He speaks bitterly of the Germans who "practice the base deception which first asks for peace and then openly begins war," and declared the Germans to be "outside the pale of negotiations."

It is upon this darker war, this abominable psychic penetration—which she is now extending and intensifying by methods inconceivable to any but her own mentality—it is upon this that Germany now stakes her ultimate hopes; upon this, rather than upon her armies, Germany depends for the ultimate development and subjection of the world.

[The foregoing comprises Chapters II and III in a beautifully printed booklet of 44 pages, copyrighted in America by Mitchell Kennerly of New York. This superb presentation of the character of Germany should be read by every man and woman in this country. The two chapters which we have quoted in the foregoing are marvelously true and are a graphic portrayal of the German nation and its worship of a false god, "a god made after their own image and before whom they now bow."

The tremendous danger which faces the nation through Germany's psychic campaign of seduction and terrorization, as outlined by Mr. Herron, should arouse the world to the task which all civilization faces. There is also ever before us the danger of these pro-German activities through some religious papers and some ministers seeking to save Germany from the humiliation of defeat. Let America beware of such.—EDITOR MANUFACTURERS RECORD.]

She pursues this penetration by sinuous economic acquisition and by gaining surreptitious control of the sources of credit. She pursues it by concentrating scientific initiative and chemical invention to a despicable espionage. She pursues it through the inner direction of religious and fraternal societies, and through sordid betrayals of hospitality. She pursues it by sending abroad her teachers, her doctors, her clerks, her domestic servants, each of them a spy or a missionary of Germanism. She pursues it by having her bribed servants in all the world's postal services; by having her diplomatic courtesans in the world's political centers. She pursues it by an almost universal blackmail. There is scarcely an important household in France or England, scarcely a governmental department or agency, of whose secrets the Germans are unaware. The evil eyes of Germany run to and fro through all the earth, and nothing escapes her pernicious and paralyzing observation and invasion. Not for one moment, neither in victory nor in defeat, does she relax her determination to impart the German way and will, the German state of mind, to every living people.

We are at war, we of the Allies, with more than a military empire; we are at war, as St. Paul would say, with the principalities of darkness, with the evil powers of the air; we are at war with a diabolic religion.

Make no mistake about it: Germanism is as certainly and distinctly a religion as primitive Buddhism, apostolic Christianity, or early Mohammedanism was a religion, but a religion as black as these were white. Essential evil has been taken by the German national soul to be its good, to be its god. The jungle-inheritance which man has so long and yet unsuccessfully sought to transmute or discard, the persisting primeval mind that oppresses and rots the nations—it is these that Germany prays as well as fights to preserve, and the marauding might that issues from these is her chosen summum bonum.

Germanism is the worship and practice of material might as the Supreme Power, the regard for material efficiency as the Supreme Good. This is the only faith which the German tribes have ever consistently held, ever truly concentrated upon. It is the core of their creeds, the center and circumference of their philosophies. Their mysticisms, in the last analysis, are the hallowings of sheer power—a pillar of cloud about materialist altars. Even Luther's appeal and stay were Jewish might. So assertive and formative this faith has been, especially since the time of Bismarck and Marx, that the German collectivity has created an actual psychic entity, a sort of national super-mind, that, enthroned and dominant, answers to all the purposes of a fearful and effectual deity.

Yes, the Germans have literally made for themselves a god after their own image, and have delivered themselves bound into his hands. They are so mastered and maddened, so blinded and besotted, by the monstrous thing they have made, they have so passed into the service of this world-abomination, that it may be there is left them no power whereby they may deliver themselves.

A COMMISSION TO BUILD HIGHWAYS WITH THE VIGOR OF SHIPBUILDING NOW IN ORDER.

THE announcement that the American Association of State Highway Officials will hold its annual meeting in Chicago October 7, 8 and 9 is at the present time of special interest, since everything which bears upon highway work is becoming more and more vitally important to the country. We have wasted time of infinite value in useless discussion and endless details on what to do in the way of highway building. For fear of being judged unpatriotic some public officials in different parts of the country have been afraid to go ahead in the building of highways for which the money was available and the building of which they knew would materially strengthen the power of the nation to fight.

Because there has been no strong, dominant organization in the Government committed to the building of highways, such, for instance, as the Railroad Administration in the handling of the railroads, this great question has been shifted back and forth from one bureau to another until no one seems to seek authority or responsibility to take the lead in handling a question of such supreme importance.

Every day since the opening of the war has increased the value of highways for motor transportation, for war work as well as for peace, but pre-eminently for war. The expenditure of a billion dollars by the Railroad Administration for the expansion of railroad facilities will at the best merely delay the further breakdown of the whole railway system. Traffic is growing much more rapidly than railroads can possibly grow; much more rapidly, indeed, than railways and highways and waterways can be expanded. It becomes, therefore, of tremendous, all-compelling interest for the winning of the war that now, not next week or next year, there should be planned and carried out a broad national highway building program. We have reached a point where these highways must be built or controlled by the Federal Government, so far as main roads are concerned. The project is too vast for individual States, and the conflict of interests would at times prevent the adequate planning and construction of main highways which are essential. To States and counties may perhaps wisely be left the building of feeders or short lines, but the National Government, as a war measure, should without a moment's delay, by act of Congress, establish some organization in Washington committed absolutely to the building of highways and nothing else. This organization should not be dependent upon the Department of Agriculture, in which road work is now handled; it should not be connected with the Railroad Administration, nor with any other department. But it should have the power to plan and to build highways to meet the needs of the Government for the handling of war materials, whether this be food or shells.

When one seriously contemplates the chaotic condition which now prevails throughout the country in highway work, at a time when every mile of bad road on main highways lessens our fighting power, increases the cost of our foodstuffs and lengthens the duration of the war, we cannot but be dumb-founded and confounded that such a condition of affairs should have been permitted to last for so long a time. From the very day we entered the war it was known that our railroads could not possibly handle the traffic. It was known that the utmost stretch of work that could be given to their expansion would scarcely more than take care of their deterioration under the strain under which they are working. It was known that motor trucks over highways could alone materially aid the situation, though waterways would splendidly supplement highways and railroads. But with a viewpoint so narrow that one is amazed to try to understand it, highway work was discouraged, the issuing of highway securities was almost banned, and even today it seems difficult to induce the officials in Washing-

ton charged with the supervision of capital issues, the officials of the Agricultural Department or any others to understand the real significance of highway work and the supreme need of hastening the construction of new highways and maintaining in good condition all existing highways which are available for any branch of war-work service.

The Postoffice Department, under the lead of Fourth Assistant Postmaster Blakslee, has made a decided move towards showing the need of highways as efficient carriers in the postal service, and has encouraged the utilization of existing highways for motor-truck work. But all that has been done by all the bureaus and departments in Washington on this subject has been negative rather than positive as compared with the needs of the times. We have had negation instead of positive aggression, with a chaos in highway work that must have delighted the heart of every pro-German in the nation. We are spending a billion dollars for railroad betterments, a sum wholly inadequate to the actual needs of the hour, but we are spending almost nothing, comparatively, in the development of highways for motor-truck hauling, though motor trucks are increasing in every part of the country wherever a passable highway is to be found. The Government itself has depended upon motor trucks for work which the railroads cannot do. The Government is wearing out existing railroads; it is shipping stuff all over the country by motor trucks, and yet it makes not a solitary move of any significance whatsoever towards the maintenance of existing highways or to the building of new highways adequate to meet the needs of the hour.

It looks as though no hope can come from any of the existing governmental activities which control and suppress highway improvements. We can see no hope for any improvement except through an organization formed by President Wilson himself in co-operation with Congress, or by Congress taking the lead for creating a commission committed wholly and absolutely to the one great issue of building highways.

We do not want any commission for suppressing highways. Too many men are engaged in that task at present. What the nation needs is a commission of men who realize that highway building means the maintenance of the nation's power to increase its war-fighting capacity and which will plan for building highways of the soundest character, knowing that permanency must be one of the fundamental elements in their construction. The highway of the past is almost valueless for the tremendous motor traffic of today. We must reconstruct all existing highways, and we must build new highways, not at a beggarly cost of a few millions a year, or per chance even \$200,000,000, which we were spending before the war, but at a cost which will ultimately run into billions, and the sooner we get at the job on the billion-dollar scale the sooner will we be saved from a complete railroad breakdown and from the halting of all the nation's activities.

Some say that we must not spend money for building highways, nor use war materials nor labor for this work. This is just as mistaken as it would be to say that we must not build locomotives and cars because the building of them requires money and labor and materials. The conditions are similar. There is no more reason for improving railroad transportation than there is for enlarging the facilities for highway transportation. If President Wilson does not take the lead voluntarily in a work of this kind, Congress should do so, and create with the President's co-operation an organization committed to the building and the betterment of our entire highway transportation system, and a commission which in its organization will be authorized to expend a vast sum of money without having its hands completely tied by any unwise action on the part of those who now control the issuing of new securities or the handling of materials. It would be as foolish to tie the hands of highway-improvement builders as it would have been to tie the hands of the Railroad Administration. It would be as unwise not to create a highway-building board or commission as it would have been not to put Schwab at the head of shipbuilding. As ships must be built, so highways must be built.

THE ZONE SYSTEM OF SECOND CLASS POSTAGE IS AN 80-YEAR STEP BACKWARD — BURLESON'S DEMAND FOR ZONE SYSTEM ON A PAR WITH HIS FIGHT FOR THE LIQUOR INTERESTS.

AGAINST the enlightened sentiment of the world against the judgment of practically all the great business leaders of America, against all the moral forces of civilization, Postmaster-General Burleson appeared before a Senate committee recently in the interest of the liquor traffic. How could anyone expect a broad view by Mr. Burleson, then, of the postal questions of the country? In a recent issue the Shoe and Leather Reporter, reviewing the zone postal issue, said:

Despite the strenuous opposition of the best thought and intelligence of the country, the zone system of second-class mail went into effect July 1. It not only departs from the long-established custom of all enlightened countries of establishing uniform rates without regard to distance, but provides for ultimate increases in the rates of postage of from 50 to 900 per cent.

Grievous and discriminatory as is this advance in the postage of newspapers and magazines, it does not even possess the excuse of being a war measure, since it provides for a progressive increase covering four years and the full measure of the increase will not be in effect until the war, in all probability, will be over.

Sir Rowland Hill is the man to whom civilization owes the institution of the cheap and uniform postal system. The reform began in England in 1839, when the penny post was established. Prior to that time a letter from London to Brighton cost eight pence; to Aberdeen, one shilling and three pence half penny; to Belfast, one shilling and four pence. The franking privilege was in effect and greatly abused. The investigations of a commission appointed by Parliament demonstrated that "the cost of conveyance of letters through the postoffice was very trifling and was but little increased by the distance over which they had to be carried."

When the bill was before Parliament to substitute for the existing rates "one uniform charge of one penny for each half ounce, without reference to the distance within the limits of the United Kingdom which the letter had to be carried," there was great opposition on the part of the postoffice officials. Sir Rowland Hill's idea was that the smaller the charge the greater the profit would be. The Postmaster General, in the House of Lords, said "that of all the wild and extravagant schemes he had ever heard of, it was the wildest and most extravagant." He said: "The mails will have to carry twelve times as much weight, and therefore the charge of transmission, instead of £100,000, as now, must be twelve times that amount." Sydney Smith said the penny post scheme would be "giving up a million of revenue." The Duke of Wellington, Sir Robert Peel and other eminent statesmen were also violently opposed to the plan.

The principle of Sir Rowland Hill's reform, including the use of stamps, has since been adopted by every civilized country. In 1839, the last year of the old postage, the number of letters delivered in Great Britain and Ireland was a little more than eighty-two millions, returning nothing to the revenues of the country, whereas in 1875 more than a thousand millions of letters were delivered in the United Kingdom. The population meanwhile had not nearly doubled.

It will thus be seen that the zone system introduced by Postmaster-General Burleson revives a plan that antedates successful postage administration throughout the world.

To call it reactionary would be to use a very mild term. The zone idea is equally as pernicious for periodicals as for letters. Far worse than the excessive increase in rates is the attempted destruction of journals and magazines of national circulation. When postage rates on papers to the zone furthest from the place of publication are advanced 900 per cent. only a few of the strongest will survive. The citizens of the country will have to depend upon their local publications. This will tend to engender sectionalism and a lack of national spirit. It is unquestionably a fact that the deadly German propaganda could not have been overcome by a healthy, patriotic public opinion without the untrammelled interchange of periodical literature from one State to another.

Postmaster-General Burleson, with the aid of unthinking Congressmen, has succeeded in putting the postal clock back eighty years. All the periodicals of national circulation are endeavoring to impress upon Congress the urgent necessity of righting this monstrous wrong.

AS VIEWED BY A FELLOW-WORKER.

MR. RICHARD FLETCHER, editor of the Chronicle of New York, in a letter to the MANUFACTURERS RECORD, writes:

"It is a positive joy to read the MANUFACTURERS RECORD. It has that wonderful quality—conviction gained by truth and not by sentimentality."

ANOTHER ILLUSTRATION OF PACIFISM.

THE Montgomery Advertiser, in criticising the pacifism of the editor of the New York Evening Post, probably unintentionally overlooks the fact that Mr. Villard was born in Germany, and therefore it is very natural for him to fall in line with those who sought to prevent this country from being prepared for war. It was the teachings of pacifists of this kind, many of whom were dominated by pro-German influence, which misled this country and brought on our condition of unpreparedness from which we and all civilization are suffering.

In commenting on a recent statement submitted to the Senate Military Committee by Mr. Villard, the editor of the Evening Post, the Montgomery Advertiser said:

Mr. Oswald Garrison Villard, publisher of the New York Evening Post, probably keeps only an imitation gun in his house. He does not believe in guns that will shoot at any time the trigger is pulled. He prefers to pacify the burglar or murderer by rubbing him with soft soap. If Mr. Villard had had his way we should have made no efforts before the war to improve the army and navy in anticipation of a possible need for these weapons of defense. We were dragged into the war, but our experience has taught Mr. Villard nothing. He is still opposed to preparedness as a peace-time policy. Naturally he is shocked at the growing demand for compulsory military training for Americans after the war.

A few days ago the publisher laid before the Senate Military Committee the following observations:

"In the years to come none of the recent amazing phenomena will, I am sure, cause greater wonderment than our recent discovery that universal military service is the cure-all for our American ills. Do we wish to defend our country? We have but to adopt the system of training every boy to be a soldier, and the problem is solved. Do we wish to become industrially efficient? Then let us forget all about vocational training, but give every American a year under arms, and presto! we shall outdo Germany in scientific efficiency and management. Is our youth lawless and undisciplined? Universal compulsory service will end that once for all. Is our democracy halting? It is the tonic of a democratic army that we need in which all men shall pay for the privileges of citizenship by a year of preparation for poison gas and of learning how to destroy other human beings. Our melting pot is a failure? Then let us pour into it the iron of militarism, and it will fuse every element at once. Finally, if we need an American soul—and the war has suddenly taught us that this glorious country lacks a soul!—it is the remedy of universal military service that is to supply our spiritual needs and give us the ability to feel as one, to think as one, to steer towards our destiny as of one mind, imperialistically.

"It is so alluring and so entrancingly easy, the wonder is that we have never thought of it before. We saw it going on in France and Germany and Russia, but it seemed altogether repulsive in its forms. Americans to be conscripted? Heaven forbid. There rose before us the unutterable cruelties of non-commissioned officers and some of the officers—visions of the thousands of men coming to our shores with hands mutilated to avoid the barracks with their open immorality, their bitter hardships, the loss of three years of so many working lives."

If the policy of universal military training had been pursued in Great Britain for a period of three or four years previous to 1914, Germany would not have forced a war. We should have had peace these four years. Had we been in position to mobilize a first-class army and transport it a year ago, who believes that Germany would have forced us into the scramble?

There appears to be a disposition not to force consideration of compulsory military training at this time. The President and the War Department prefer that it be held up for a while. That is agreeable to many of the advocates of the policy; but it is worth while to note that the sentiment for universal service has grown very rapidly, and that it will continue to grow until its advocates have their way. It is a policy to be put in force in times of peace. The machinery for training soldiers is occupied in time of war, and is not free to train the boys. At least we are assured of this by many of those who think it would be wise not to force universal service at this time.

Men of Mr. Villard's point of view directed public opinion before the war, both here and in England. It is now seen that these men were without proper vision. Events show that they were wrong. How can they expect the people to listen to their pacifistic theories again?

If the Advertiser will bear in mind Mr. Villard's birthplace, it will probably not be surprised at the position taken by him.

On and after August 1 subscription price will be \$6.50 per year in the United States.

A GRAPHIC AND OPTIMISTIC VIEW OF OUR WAR DEBT.

JOHN G. LONSDALE, president of the National Bank of Commerce, St. Louis, Mo., writing under the head, "Some Cheering Thoughts on the War Debt," in the Railway Age's Investment Section July 12, presents cogent reasons for optimism concerning the future in words which commend themselves to thoughtful men everywhere.

After remarking that though the figures of our indebtedness are huge, the ratio to our national wealth is very small, and that it will probably never reach the ratio developed by the Civil War's expenditures to the nation's wealth as it then existed, he says:

"Our national wealth and our annual national income have been estimated at \$250,000,000,000 and \$40,000,000,000, respectively, while our war expenditures will be, it is thought, about \$15,000,000,000 per year when our industries are fully converted to a war basis. But, as a matter of fact, if the estimate of our income gave due consideration to war prices, the total would probably be \$60,000,000,000 instead of \$40,000,000,000. Some idea of the enormously increased production, which includes, of course, a great deal of war materials, may be gained from the fact that income and excess profits taxes, which it was originally estimated would yield \$2,500,000,000 for 1917, will probably yield over \$4,000,000,000. These figures are significant, too, as supporting what has previously been said about the ease with which our pre-war national debt of \$1,000,000,000 could have been discharged.

"In the foregoing we have spoken of the annual cost of war in terms of dollars. War's burden, however, would be more accurately referred to as a loss, and be treated in terms of tangible property—cloth, and steel, and foodstuffs, and all other things that minister to the wants and comfort of mankind. In a broad sense, we may say that this loss arises on the one hand from increased consumption and destruction of commodities, and on the other from decreased production. We know that we are losing ships and cargoes, and that guns and munitions of war of every kind are being manufactured to last but a short time on the battle front. We know, too, that millions of men who were producers are being converted into soldiers. But then, too, we know that civilians are working harder than ever; that a great many women formerly unemployed have joined the ranks of wage-earners and producers. We know that a not inconsiderable part of the war's cost is represented by wages paid to soldiers, much of which sum will be saved. We know that, as our shipbuilding program now stands, the end of the war will find us with more ships than ever before. We know how highly improbable it is that this country will ever be invaded by a hostile force, and our railroads, our buildings, our farms, factories and mines will therefore remain unaffected by the direct ravages of war. It must follow, then, leaving out the question of debt in terms of dollars, and considering merely property loss, that this country is not driving toward economic ruin, even if it be assumed that the war will last ten years. * * *

"At the end of this war the people of the United States, represented by their Government, will owe the people of the United States as bondholders a certain sum of money. This money must be raised by taxation assessed against property and income. But it may be safely assumed that the ownership of Liberty bonds will be distributed according to property and income also; and, in so far as this holds true, each person's payments of taxes will come back to him in the form of bond interest and repayment of bond principal."

Concerning the business future when the war shall have ended, Mr. Lonsdale observes that, judging from the trend of current events and the teachings of history, we can arrive at certain general conclusions. Continuing, he says:

"There must, of course, be a period of economic readjustment to peace conditions, just as the process of adjustment to war conditions is now going on. But this period will be short, and will perhaps be partially prepared for before the war ends. For a decade after peace comes, Europe will go through a process of rehabilitation, and the materials for this work will be largely supplied by our people, because we may depend upon the working out of some plan, probably through the Government, whereby the necessary credits will be granted to those nations whose peoples desire to purchase from us. As a nation we have already become accustomed to making foreign loans, and as individuals to financing foreign business. There will be real co-operation between Government and business, both in financing and in entering foreign fields. Our banks will come out of the war in liquid condition, because liquidity of assets is the present watchword of bankers throughout the country. Returning soldiers will soon find work, because there will be much to do. Stocks of goods all over the world will have become depleted and will need replenishment. A great amount of building and construction work in this country, both private and public, is now being deferred till the coming of peace. Railroads will need extensions and new equipment, and the railroad industry will be liberally financed. We

shall be very busy with all of this, and our economic recovery from the effects of war will be rapid."

In conclusion, Mr. Lonsdale refers those who may doubt the ability of humanity to rise from the ashes and wreckage left by the war to the history of France after the war of 1870 and also to the quick economic recovery of the United States after the Civil War. And he points to France today as demonstrating by her courage and vigor in the conduct of the war her ability to fast regain her strong position in the affairs of the world when hostilities have ceased.

His contentions are sound and rest upon strong foundations. The stupendous figures which represent the cost of our participation in the great conflict are, after all, merely the names by which the huge aggregate of material and effort are known to us all, and the storehouses from which these are taken continue practically unimpaired, so great are our resources both in materials of all kinds as well as in physical energy. There is no need to fear the future. Let the faint-hearted take courage from the real conditions as they are accurately described by Mr. Lonsdale, looking ahead, not mournfully backward, but wisely improving the present that we may be prepared for the future.

MEN WHO WERE MISLED OWE THE NATION A FRANK ADMISSION.

A NUMBER of leading ministers in this country, holding positions of very great responsibility for the shaping of national opinion, have thoughtlessly used and secured the publication of the two fake letters exposed in the MANUFACTURERS RECORD of July 4 which purported to be from an English aviator to the mother of a German whom he had killed in battle and her letter to him in return inviting this English officer to come to her after the war and in effect be her son.

That intelligent men, accustomed to think, could ever have been caught by such chaff is to us a very serious illustration of the tremendous power of the German propaganda in this country, which sows its deadly seed in the pulpit and through the press, often without those who are being used and worked by it having the slightest conception that they are being "played for suckers" by this German propaganda.

It behooves the ministers and the religious papers which have given publicity to these letters to frankly and honestly admit before the public, with the same wideness of publicity which they gave to the use of these letters, that they were misled and duped into using letters which even the authoress admits were never written. It may require some degree of courage for these men to take this position, but we cannot conceive that there is any minister or religious paper which, having been hoodwinked and caught by this chaff, should now lack the moral courage to frankly admit it as publicly as were the addresses and the reprinting of the fake letters as genuine.

THE STRAY DOG NUISANCE IN NEW ENGLAND.

ANOTHER argument against the stray dog nuisance and its peril to sheep raising is presented in the following item, published in the telegraphic columns of the Boston Transcript, from Westboro, Mass.:

Dogs invaded the premises of George H. Johnson, Milk Street, Saturday night and killed two of the best sheep in his flock.

One fine young ewe was half devoured by the dogs, and the body had been dragged to the bank of the river. The other sheep was badly mangled also.

Mr. Johnson has the only flock of sheep in the town, and had repeatedly refused to sell the animals in the spring. In the spring clip the sheep averaged ten pounds of wool, and they were valued at \$25 each.

The appraisers decided upon a settlement of \$15 each for the sheep killed and \$1 each as damages for the eleven animals that were worried by the dogs, making a total of \$41.

Is it not supremely foolish, considered from every point of view, for legislators to continue to refuse to pass adequate laws to remove so serious a menace to the wool and meat industry as is the stray dog?

Railroad Administration Authorizes Expenditure by South and Southeast Railroads for Agricultural Development, But Withholds Approval of Industrial Development Essential to Winning the War.

United States Railroad Administration,
W. G. McAdoo, Director-General,
Interstate Commerce Building.

Washington, July 9, 1918.

Mr. Richard H. Edmonds,
Editor Manufacturers, Record,
Baltimore, Md.

Dear Sir:

Yours of July 5, 1918, addressed to the Director-General has been referred to me for reply.

It was my own individual opinion that the development activities of railroads, both as to industries and agriculture, should be continued, but the conclusion was finally reached that the industrial part of it ought, under present conditions, to be cut out, mainly for the reason that, owing to shortage of materials and supplies, including transportation, the industrial activity of this country has necessarily to be limited during the period of this war.

The Director General and his advisers were of the opinion, however, that the agricultural activities of the railroads should be continued and permission was at that time given to all railroads in the South and Southeast to expend during the current year as much money as had been expended during the previous year.

From the above you will see that it has not been the policy of the Administration to stop these activities where it was thought that it was desirable to prosecute them at the present day.

You must understand that what the Director-General has done has been with a view to present conditions and is not intended to indicate what his idea might be as to a settled policy under Government control.

Very truly yours,

C. A. PROUTY, Director.

The MANUFACTURERS RECORD with great pleasure publishes this official announcement from Mr. Prouty that the Railroad Administration has authorized all railroads in the South and Southeast to expend during the current year as much money as had been expended during the previous year in the development of the agricultural interests of their territory.

This announcement will prove of widespread interest. It is entirely contrary to the impression that has been created among the railroad officials of the South, for they have been under the impression that they were not authorized to continue the activities of their agricultural bureaus, and, therefore, many of them have already curtailed their operations and some have entirely discontinued them, thus practically disbanding the forces which have made for the agricultural upbuilding of their territory.

Mr. Prouty's statement therefore will be warmly welcomed by the railroad people of the South and by the South at large.

This is pre-eminently the time for every railroad in the South to press upon public attention the potentialities of this section for agricultural advancement in order to bring from other sections the settlers who are now being drawn to Canada by the broad advertising campaign of Canadian railroads in American papers.

We do not, however, agree with the position taken by the Railroad Administration that the industrial part of the Southern railroads should be discontinued because that industrial work meant the utilization of the resources of the South for the things needed to win the war. Had these railroads been authorized to continue their industrial work, as they should have been, they would now be bending every effort toward the exploitation of the raw materials in their territory so absolutely essential in war work. The South is the great storehouse of raw materials in this country. The nation is importing many things which the South and Southwest could provide if the railroads of these sections were given authority to do adequate exploiting and investigating work. But these roads must have the hearty co-operation of the Railroad Administration and authority to carry on the campaign so that geologists and other experts may be constantly in the field hunting out opportunities to mine the ores

needed and to manufacture the things required for war-making activities.

The Railroad Administration made a very serious mistake when it discouraged industrial activities successfully conducted for so many years by the Southern railroads. In doing this it discouraged the utilization of the raw materials with which the South is more abundantly supplied than any other section of the country. The East is over-congested. The railroads cannot possibly give adequate transportation facilities for the munitions and other things connected with war work produced in the East and the Central West.

Every plant built in the East becomes a liability to the nation, instead of an asset, yet in the face of this fact the railroads in the South were discouraged in presenting to the nation the great resources in raw materials available for the establishment of industries which would lessen the strain on the railroads of the East and hasten the day when the nation would be equipped for fighting on a scale commensurate with the magnitude of our task.

Mr. Prouty's statement that the railroads are now authorized to continue their work for agricultural development should be supplemented by full authority to vigorously and aggressively use this opportunity for industrial and mineral activity on the part of every railroad in the South and Southwest.

In reply to Director Prouty's letter, the following has been sent:

July 10, 1918.

Mr. C. A. Prouty,
Director, Railroad Administration,
Interstate Commerce Building,
Washington, D. C.

Dear Sir:

Acknowledging receipt of yours of July 9th. Your statement that the Railroad Administration favors continued agricultural activities of the railroads of the South and Southeast will be welcome news to those sections. It is directly contrary to the views which are held by the railroad people of the South, who believe that they are not authorized by the Administration to continue these activities.

In heartily commending your authority for the railroads to continue their agricultural activity I am taking a strong stand against the discontinuance of industrial work, because the industrial development of the South is the only sure foundation on which you can build the additional industries needed for the winning of the war. It has already been decided that no new factories for making war materials should be established in a large portion of the East. For two years I have been trying to press the certainty of this situation upon the country and upon the railroad people themselves. The Government, in taking this action, is only doing, after two years of delay, what the MANUFACTURERS RECORD has for two years been pointing out as an absolute necessity to save the country from railroad congestion and a breakdown of railroad facilities.

But by withholding the privilege of developing the industrial resources of their country from the railroads of the South and Southeast you are lessening the nation's power to fight and you are compelling the use of a large amount of shipping to bring to this country raw materials which could be developed in the South and Southwest, if you would give the railroads full authority to carry on vigorously their work of exploitation and investigation.

Every day shows that we must utilize new resources of raw materials and that we must build factories for the manufacture of the things needed for war. Every day at the same time proves that these factories must be built in the South and Southwest, or else they will be a handicap rather than a help to the nation, but in the light of this situation the Railroad Administration denies to the railroads of the South and Southeast the privilege of helping the nation in this great contest.

The Railroad Administration and the War Industries Board have united in urging the very step that I am trying to impress upon your attention, that all new work for war activities must be turned to the West or South and Southwest. Emphasis has been laid in official reports upon the over-congestion of the East and Central West and it has been ordered that no new war contracts shall be given to this

congested district for the present and that the energy of the nation in securing an enlarged output must be concentrated into the West and South. Notwithstanding this fact, you advise me in your letter of July 9 that the Railroad Administration, contrary to your judgment, decided that the industrial work of Southern and Southeastern railroads should for the present be cut out. Thus the Railroad Administration in that action decided directly contrary to its other action of urging the development of industrial work in the South and

Southwest, which is also the decision of the War Industries Board, for the making of the things which enter into war activities. Under the circumstances I trust, though great harm has been done by the disorganization of the industrial bureaus of Southern railroads, that the Railroad Administration will promptly correct its error and authorize the railroads to continue the great work they were doing.

Very truly yours,

RICHARD H. EDMONDS, Editor.

A FALSE VIEW OF SOME NEW YORK BUSINESS MEN ON THE FINANCIAL INTERESTS OF THE LIQUOR TRAFFIC.

A CIRCULAR issued in the interests of the whiskey or brewery business is being distributed containing a statement to the effect that the directors of the Merchants' Association, New York, had favored the payment by the National Government for property now used for the liquor trade if prohibition should be put into effect. The report adopted by the directors was signed by a committee of three members, consisting of William F. Morgan, president Brooklyn Bridge Freezing and Cold-Storage Co.; William A. Marble, vice-president R. & G. Corset Co., and J. G. White, president J. G. White & Co., Inc.

The following letter was sent by the editor of the MANUFACTURERS RECORD to each member of the committee:

I am in receipt of a circular, evidently issued by the whiskey or brewery interests, reciting resolutions purporting to have been passed by the directors of the Merchants' Association of New York on the advice of a committee composed of yourself and two others, to the effect that if national prohibition should be adopted the liquor interests should be recompensed financially for their investment.

Will you kindly advise me if this report is correct?

If so, may I ask if you have considered whether in this day and generation a recommendation to recognize slavery as property to be paid for by the National Government would receive your favorable endorsement? Certainly slave property was as legal in 1860 as is any form of property today; but after four years of war, with a great cost in lives and money, slavery was abolished; and I do not think that anyone, a slaveholder or a non-slaveholder, would at this day suggest the payment to slave owners of a legalized property which they had owned by the constitutional rights given them by the Government.

It is an accepted fact that wherever the use of property for a saloon or immoral purposes is contrary to the welfare of the community, the community has a perfect right to forbid its use, even though in doing so it may destroy the financial value of the property. No one, I believe, for a moment questions the fact that a community has a right to prevent the use of property for such purposes when that use is contrary to the best interests of the community, as measured by the decision of a majority of the people expressed through police action.

In view of this fact I will greatly appreciate it if you will advise me as to whether you personally took an active part in the discussion of the resolution purporting to have been submitted by the committee and adopted by the board of directors of the Merchants' Association.

To this letter we have a reply from Mr. White, and one from the Secretary of the Merchants' Association, stating that the letter by Mr. White is adopted and approved by Mr. Morgan and Mr. Marble.

Mr. White's letter is as follows:

J. G. White & Company,
Incorporated,
43 Exchange Place,
New York,

June 20, 1918.

Mr. Richard H. Edmonds,
Editor Manufacturers Record,
Baltimore, Md.:

Dear Sir—Yours of June 18 received.

The matter referred to was discussed at a meeting of the directors of the Merchants' Association, and the resolutions adopted were arrived at as a compromise after a good deal of discussion.

I think that every director of the Merchants' Association here believes that the Government has an absolute right to abolish either the sale or manufacture of alcoholic drinks. This point is not raised by the resolution. All that the resolution covers is that if the Government, to protect the health or moral well-being of its citizens, absolutely prevents the use of property

for the purpose for which the Government has previously legalized its use, then it would seem equitable that a portion of the loss directly due to the Government's action might properly be borne by the Government. If people should be engaged in illegal traffic, then I think that no director of the Merchants' Association would feel that the Government should bear any portion of the loss entailed by shutting up the business. Whether the Government was wise in the past in legalizing the manufacture and sale of liquor is, of course, debatable, but, having legalized it, it seemed to the directors of the Merchants' Association that it would be fair and equitable for the Government to bear part of the loss which is entailed by a change of laws. For example, in New York State there are comparatively strict laws requiring the killing of cattle found to have tuberculosis. Examinations are made periodically, and cattle which are shown to be diseased are killed by order of the State, but as this is done to protect the public health, the State pays for these cattle.

It was not the opinion of the directors who discussed this matter that if the liquor business were prohibited the Government should go as far as it does in cases, for example, like those concerning cattle, but they did all agree that it would be equitable that some portion of the loss entailed by the change in laws should be paid by the Government, since it was for the benefit of the public at large, and such portion as might be paid by the State or nation would be paid by the public at large, who receive the benefit from making the business illegal.

There was nothing in the resolution to imply that the directors felt that the liquor traffic should not be stopped, nor that in any way applies to the moral questions involved or to the question of whether or not the traffic should be stopped.

You speak of slavery. My personal ideas about this would be that if up to today slavery had been legal in the United States, and we passed a law making it illegal, then the United States ought to at least in part compensate the slave owners for their losses, which would be due not to their having engaged in any illegal traffic, but to the decision of the United States that it would adopt the humane policy of not permitting slavery to exist in this country.

You will probably remember that prior to our Civil War there was a considerable element in this country that felt that slavery ought to be abolished, but who also, at the same time, acknowledged that it would be equitable for the Government to pay, either entirely or in part, for the slaves released.

Your letter seems to imply a confusion of ideas as between the equities concerning financial losses involved and the moral, humanitarian and public health issues involved. They are absolutely distinct, and should not in any way be confused.

Hoping the above will be satisfactory to you, I remain,
Very respectfully yours,
J. G. WHITE.

Mr. White and his fellow-members seem to be the ones who have the greatest "confusion of ideas as between the equities concerning financial losses involved and the moral issues," and not the MANUFACTURERS RECORD, as they have suggested.

These gentlemen do not answer the question raised in our letter as to whether they would believe that property used for a saloon or for immoral purposes should be paid for when the community decides to forbid the use of that property for that purpose. The capital invested in such an enterprise as a saloon or the ownership of saloon property may be entirely destroyed by the action of a community which forbids the continued use of the property for that purpose. The right of every community, as a police matter, to forbid the use of property for a saloon or other immoral purposes is unquestionable in law and in ethics. The members of the committee do not answer the question raised on that point, and they beat around the bush a long way, but they do not get anywhere.

The Louisiana lottery was entirely legal. Its business extended over America. It paid an enormous profit to the State of Louisiana, but the United States Government, believing that it should no longer exist, voted it out of existence by the action which forbade the use of mails for the handling of anything pertaining to the lottery. The Government thus destroyed a legalized business and a

business certainly infinitely higher in every respect than the accursed liquor traffic, and yet we have never heard anyone venture the suggestion that the Government should reimburse the owners of the Louisiana lottery for the profit it destroyed by voting the company out of existence.

It is true, as these gentlemen suggest, that there were some people prior to the Civil War, and there were also a few during the war, who believed that the slavery question could be better settled by paying the owners for slaves, but that met with no small a response that it has never been considered as having in any way affected the action of the nation.

But the slavery business, bad as it was in all of its ramifications, was heavenly as compared with the damnation of the liquor traffic. The slave was fed and clothed and humanized; the liquor traffic brings starvation and poverty and lack of clothes and damnation of body and soul.

In olden slave days the South did the greatest piece of missionary work ever done in human history, for it civilized and Christianized some millions of slaves fresh from the barbarism of Africa, and hundreds of thousands of them became as honest, devoted, conscientious Christians as the world ever knew.

The liquor traffic never brought civilization or Christianity to any human being, but it has brought Hell on earth and in the hereafter to untold millions, and it has brought suffering indescribable in amount and agony to hundreds of millions who have had to see starvation staring them in the face and themselves and their children disgraced by reason of the drunkenness of fathers led thereto by the accursed liquor traffic.

The liquor traffic has known for generations that it is just as much against the moral sentiment of the world as would be the slave trade today. It knows that it has existed in direct opposition to all of the intelligent forces of the world. It knows that it has been allied with most of the political corruption and the large part of the immorality of this nation as of others. No man has invested a dollar in the liquor trade in the last 50 years who did not know that he was staking it on a gambler's chance, for he knew that at any moment the aroused moral sentiments of the country might wipe it out of existence.

To compare this situation with the repayment by the Government for cattle killed because of tuberculosis displays a lack of thought and a narrowness of vision which we could never have believed of Mr. White or his associates. Mr. White is the head of a great contracting firm. His business covers nearly all parts of the world, except probably Germany, Austria and Turkey, but we do not believe that Mr. White would ever claim that a single job that he has done was the better done or more quickly by the use of whiskey. We do not believe that he would take the stand on any great contracting job and advise his men to drink. He, as well as all other business leaders, knows that the liquor traffic is a curse. He knows that it brings sorrow and suffering and death, rivaling the worst wars of the world. He knows that it produces inefficiency. He knows that he cannot go into any saloon in America without feeling that he is in the wrong place, and he knows that the majority of saloons are hotbeds of vice and crime. And will Mr. White and his associates, while taking no stand on the moral issue involved, yet want the nation to pay for the property now used for such trade, provided the nation should adopt a prohibition law?

Mr. White is too big a factor in American business life to place himself in that position. He has made a mistake, and the MANUFACTURERS RECORD, as a good friend, regrets to have to point out such a blunder.

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The Greatest Economic and Moral Issue Before the Nation Antagonized by Some Bankers from Narrow, Shortsighted Viewpoint.

A MAN of wide business experience and of the highest standing in the business and financial circles of this country, Mr. F. W. Haskell, president of the Carborundum Company of Niagara Falls, associated in his operations with many of the greatest capitalists in America, has long foreseen the coming doom of the liquor trade and the mistake of bankers who continued to lend money to liquor interests, and once placed himself on record with a bank of which he is a director when he submitted to the board of directors the following paper:

At various meetings of this board I have taken occasion to express my wish that this bank might cease to give support to the liquor trade through loans to distillers, brewers or dispensers of liquor.

Heretofore my desires in this matter have been based on moral and economic grounds; and the various presentations of my views have been made in perhaps a semi-jocular manner because I have realized that my standards in connection with the subject have been too advanced to be acceptable to the majority of this board.

I now wish to be placed on record as being opposed to the further loan of money to the liquor interests, or on liquor as a security; on the ground of safety to the bank itself.

The man in South Carolina who sold his slaves in 1861 was in vastly better circumstances in 1865 than was his neighbor who held on to his slaves and saw their value as an asset vanish over night, as it were, because an orderly moral and economic evolution had suddenly been changed into a military and political revolution.

While not posing as a prophet, I feel that the making and selling of liquor will before long be outlawed to the extent that they will cease to be safe fields for financial investment. Indeed, as you have all noticed in the papers, a delegation of bankers has protested in Washington against National Prohibition because the banks are so deeply and heavily involved in the various kinds of liquor loans.

For these reasons I offer the following resolution:

"That the officers of this bank be and are instructed 'First, To make no new loans to distillers, brewers, dealers in liquor; or on the security of spirituous or malt liquor of any kind.

"Second, To whenever possible without actual and material loss to the bank, decline to renew, at their maturity, existing loans of this nature.

"Third, To, whenever it is necessary for the bank's protection to renew existing loans of this character, insist upon a material reduction of the amount of the loan, and to use every effort to bring about the complete extinguishment of the loan at the earliest possible date."

As a number of bankers in Baltimore and elsewhere, caught by this situation, are eagerly scrambling to save their money by wild appeals to Congress and the President against Prohibition, the Editor of the MANUFACTURERS RECORD on July 13 wrote to the Baltimore *Sun* as follows:

For the last five years it has been so evident that the liquor interests of this country were as certainly doomed, as it was evident in 1862 to far-seeing men that slavery was doomed, that any banker who in the last half decade has loaned money to any branch of the liquor trade has demonstrated a short-sightedness and a lack of banking ability.

Every dollar loaned during that time to the liquor trade of the country of the money of depositors or stockholders has been risked on a gambler's chance. Indeed, it has scarcely had a gambler's chance, for intelligent men everywhere should have foreseen that the moral sentiment of the world had determined to destroy the liquor trade just as thoroughly as the moral sentiment of the world prior to 1861 had made impossible the continuation of slavery.

Even slavery had many things to its credit in that the slaves were clothed, fed and housed, and the old South did between 1800 and 1860 the greatest piece of missionary work in the world's history, in that it civilized several millions of slaves, many of them fresh from the barbarism of Africa, and Christianized hundreds of thousands to the point that in those days there were as consecrated, devoted Christian men and women among the blacks as have ever been found on earth. Slavery, therefore, unwise from every possible point of view, as it was an economic wrong to the South as well as a moral wrong to civilization, had much which might be put to the credit side of its ledger.

The liquor trade has not one single thing to its credit. It has held in subjection millions and tens of millions of slaves under a ruthless slavery more destructive to body and mind than any slavery which Africa has known, and by the side of which the slavery of the South was as daylight to darkness.

The liquor trade has never clothed nor fed nor housed its slaves. It has destroyed them physically, mentally and morally. It has lessened the efficiency

of every drinker. It has filled our penitentiaries and jails and almshouses. It has brought into the world woe and sorrow rivaling that of war itself. To those who give their loved ones in this great struggle of civilization against barbarism on the battlefields of France, there comes the consoling thought that these men, the very flower of American civilization, if they die, die in the holiest cause to which God has ever called men, and this brings comfort and consolation to those left behind; but to those whose loved ones besotted by drink die the death of the drunkard there is nothing but chagrin and mortification and shame.

Despite this fearful curse of the liquor trade and the awakened moral sentiment of the world of recent years to destroy it, some bankers have continued to lend money on liquor, and now moved by the fear of financial losses, they are beseeching Congress to save them or their clients, and thus they are putting money above morals, immorality above morality, inefficiency against efficiency, and at the same time are admitting by their very appeal to Congress that they have been so short-sighted that they did not see that the moral sentiment of the world had doomed the whiskey trade to destruction just as certainly as in 1861 it had doomed the death of slavery.

When Mr. Hurley and Mr. Colby of the Shipping Board tried to defend the liquor trade on the ground that prohibition would in their opinion lessen the efficiency of shipbuilders they went directly contrary to every fact in the case which they themselves had already admitted in their official publications. They had given to the shipyards of the Pacific Coast the credit for being more efficient than any other shipyards in America, and when they were asked if their statements as to the efficiency of those yards were correct they of course replied in the affirmative, and then the fact was pressed upon their attention that these yards which they had commended for efficiency greater than that of any other yards in the United States were all in prohibition States.

Detroit is the largest prohibition city in America. It is one of the greatest industrial centers of the world, making an enormous amount of war goods at the present time as well as building ships. Before the Senate Committee which was investigating the prohibition question and in rebuttal of the claims made by Mr. Colby and Mr. Hurley there was presented a joint statement by the leading manufacturers of Detroit in which, specifically denying the claims made by Mr. Hurley and Mr. Colby, they said:

"We have been informed that Hon. E. N. Hurley, chairman of the Shipping Board, thinks that war prohibition will disorganize labor activities in shipbuilding plants. And the newspapers report that Hon. Bainbridge Colby of the Shipping Board has appeared before the Senate Agricultural Committee to protest against the enactment of war prohibition on the same ground.

"Detroit is the largest city in America under prohibition. The prohibition law went into effect here on May 1 of this year. A great number of our leading concerns are working on immense contracts for war material. It will therefore be seen that the experience of our large industries as touching the point raised in the objection of the Shipping Board to prohibition is not only valuable, but conclusive on this point.

"There is no division of opinion among our leaders. They are unanimous in giving emphatic testimony to the wonderful benefits prohibition is producing. Our big concerns are reporting fewer absences of men, fewer accidents, greater unity and higher efficiency on the part of their employees. Their men come to work now with clear heads and steady hands on Monday mornings and after holidays.

"Detroit's experience has proven beyond a possibility of doubt that the wage-earners do not insist on their beer as the price of their loyalty, and that instead of prohibition causing any industrial revolution or disorganization, it, on the other hand, is a most valuable contribution to industrial efficiency, higher productivity and conservation of man-power, all of which are of very vital consideration to our country in these war times.

"If the Shipping Board and others who object to war emergency prohibition on the ground that it will cause disorganization of labor or revolution among industrial workers will but study the experience of Detroit, they will find that their anxiety on this matter is totally unfounded. After an unexcelled opportunity of studying the value of prohibition in its relation to industrial efficiency, our conviction is that no measure of conservation would be more valuable to our country and its interests at this time than war emergency prohibition."

This letter was signed by President Leland of the Lincoln Motor Car Co., the president of the Burroughs Adding Machine Co., the vice-president of the Packard Motor Car Co., the manager of the Cadillac Motor Car Co., the secretary of the Employers' Association of Detroit, and a number of other great industrial leaders of that city.

At the meeting of the Senate committee, when Mr. Hurley was making his statements, he then had in his pocket a telegram addressed officially to him by the president of one of the greatest shipbuilding

plants on the Lakes. He did not, however, present this telegram until someone, knowing that he had received it, asked that he read it. This telegram, from John R. Russell, president of the Great Lakes Engineering Works, contained the following:

"We have shipbuilding plants in Detroit, Ecorse and Ashtabula, and know positively that the morale and efficiency of our men has been improved by change from so-called wet to dry conditions. At conference today of our executive officers, general managers and superintendents of various plants, serious objections were raised by all present to modification in any way of prohibitory laws now in effect in this State. If any statutory permission is given for the sale of beer and light wines in neighborhoods of our yards it would positively impede the program for delivery of ships we have promised to the Shipping Board. Are confident large majority of our employees would concur in this expression of opinion.

"Prohibition has had such signal success in benefiting ship construction in Michigan that similar legislation is absolutely required, in our opinion, to enable the Shipping Board to carry out its war program for output. We are firmly in favor of the Jones amendment to the food emergency bill.

For many months the coal operators of the United States have been urging national prohibition as absolutely essential to the increased output of coal, and now they are pressing the matter vigorously upon the attention of President Wilson and of Congress.

Some months ago a petition, signed by a thousand of the leading financiers and business men of America, was presented to Congress urging absolute national prohibition. It read as follows:

"In view of the scientifically proved unfavorable effects of the use of alcoholic beverages even in small quantities;

"And in view, therefore, of the colossal, physical, mental, moral, economic, social and racial evils which the manufacture and sale of alcoholic liquor entail;

"And in view of the inadequateness of all methods hitherto employed to check or regulate these evils;

"And in view of the great and rapid growth of public knowledge and sentiment on this subject as shown by anti-alcohol agitation and legislation through most of our national area;

"The undersigned believe the time has come for the Federal Government to take steps looking to the prohibition in the United States of the manufacture, sale, import, export and transport of alcoholic liquors."

*With the understood exceptions for medical, sacramental and industrial purposes.

This petition was signed by Judge E. H. Gary, chairman of the United States Steel Corporation; by Thomas A. Edison; F. A. Vanderlip, president of the National City Bank of New York; John Burroughs, naturalist; Warren S. Stone, grand chief, Brotherhood Locomotive engineers; W. J. Harahan, president Seaboard Air Line Railway; Dr. John M. T. Finney of Baltimore; Roger W. Babson, president of Babson's Statistical Organization; John Crosby, president Washington-Crosby Flour Co.; James G. White, president J. G. White & Co., engineers, and by other leading men of finance and the business world to the number of one thousand.

And yet, in view of the facts which I have given and which could easily have been known by every banker in the United States who cared to read and cared to see the inevitable doom of the liquor trade, some bankers are presuming to go against the moral sentiment of the world and are fighting prohibition, or to delay it, in order that they may be saved from the inevitable outcome of their own shortsightedness in putting the liquor trade before the nation's efficiency and its power to win the war. They are thus doing exactly what every pro-German in the country is anxious to see them do, and to the best of their ability are fighting against the efficiency of our shipbuilders, our coal miners, our iron and steel workers, our farm laborers and the men in our army.

If drink is so good a thing as these people say, then why does the Government find it absolutely necessary to prohibit the sale of alcoholic drinks in the army and navy and within five miles of any army post?

The bankers who have placed themselves in this unfavorable position will live to be as much ashamed of their fight for the liquor traffic as today would be any man who openly advocated immorality or slavery as a national asset.

RICHARD H. EDMONDS,
Editor Manufacturers Record.

HOW A KENTUCKY COUNCIL OF DEFENSE IS WORKING TO INTEREST WHITES AND NEGROES ALIKE IN PRODUCTION, CONSERVATION AND THRIFT IN CONNECTION WITH WAR WORK.

MR. A. C. BOUGHTON, manager of our St. Louis office, writing from Louisville, gives an interesting account of the great work that is being done by Mr. C. F. Huhlein of B. F. Avery & Sons, agricultural implement makers of Louisville, in connection with his associates on the Committee on Agriculture of the Council of Defense. Mr. Boughton's letter is so interesting that we give it in full as an inspiration for others throughout the South and Southwest to do the same splendid work that is being done by Mr. Huhlein and his associates. It is as follows:

I had an interesting talk this morning with C. F. Huhlein of B. F. Avery & Sons. The company is circulating a lot of printed matter of a patriotic nature, inspirational in its character, which goes to all its branch houses, implement dealers, farmers and other correspondents. Even their envelopes carry a message, as you will see from the enclosures, one being credited to MANUFACTURERS RECORD.

Captain Huhlein is chairman of the committee on agriculture, Council of Defense for Jefferson county, which includes the city of Louisville. He also is chairman of a committee under the Council of Defense for the State which might be described as the committee on war work among negroes, speaking broadly. This committee is just getting to work, and the ultimate extent of its activities can hardly be foretold, but the initial plans seem to cover about every range of human influence and activity.

The county is to be the unit. In it a committee of whites and negroes will plan to reach each negro family. This will be accomplished by meetings in the larger towns, where speaking of inspirational character will reach the people, in smaller places and the local communities the schoolhouses will be the centers of the movement. Leaders of the race and the preachers are to use their influence with the people in bringing them to a realization that they are concerned in the war and that thrift and industry will accomplish much in winning it.

Efforts will be made to turn the laboring element among the negroes into channels that will be directly productive and to provide an adequate mental stimulus that shall energize their possibilities. Among the women the ideals of economy and thrift, with their attendant rewards, will be stressed as contributing to the success of the war. While for the children there will be a movement directing their minds towards war gardens, thrift stamps and the economies within the range of their capabilities. It is quite likely that the negro children, as a means for fixing the definite thing in their minds, will be asked to write essays and "speak pieces" on war activities that children may engage in, with the certainty that a suitable award will be given for the best efforts. A negro who is willing to take up an occupation in a productive industry may very possibly himself receive a distinctive badge or other mark of honor to indicate that his labor helps war winning, and the movement may spread until the home has an emblem to show that the people within each, in his or her own capacity, is contributing to the greatest cause the world has every known.

Captain Huhlein believes that work of the sort his committee proposes will not alone effectually aid in the present conditions, but that the seed of thrift, economy and labor planted at this time and fertilized by the inspiration of high patriotic endeavor will bear fruit not only for the present, but that will be a blessing in the lives of the colored race for all time.

WHY REPUTABLE NEWSPAPERS COMMENT OR CONDEMN WITHOUT REGARD TO PERSONAL FRIENDSHIP.

"IN view of the fact that you so strongly commended Mr. Edward N. Hurley for having done splendid work as Chairman of the Federal Trade Commission, how could you so vigorously criticize him last week because of his antagonism to Prohibition?" is a question asked by a reader of the MANUFACTURERS RECORD.

The question shows that the reader who asked it did not fully understand the policy of the MANUFACTURERS RECORD, which should be the policy of every reputable newspaper, and that is, a policy which commends or condemns absolutely without regard to personal friendship.

The Editor of the MANUFACTURERS RECORD has for several years had many opportunities to commend most highly the public work of Mr. Hurley. We expect to be able to do the same thing many times in the future, for we do not believe that the one serious blunder made by Mr. Hurley in an-

tagonizing prohibition indicates that his usefulness is at an end, but when Mr. Hurley took a stand against prohibition and in favor of the liquor traffic, he made what we regard as a fundamental error, entirely contrary to the facts, and based his statement wholly on his opinion. On that account we criticized him as vigorously as we had commended him in the past, and any newspaper which does not, especially in these war times, forget all personal friendship, and stand for what it believes to be the right, regardless of whether in doing so it commends or condemns enemies or friends, is unworthy of the respect of the American people.

We recently listened with much interest to a splendid address by Mr. Colby of the United States Shipping Board in regard to the need of ships, and we gave him unstinted praise for it, but that did not prevent the MANUFACTURERS RECORD from criticizing Mr. Colby for having made exactly the same mistake that Mr. Hurley made in opposing the great economic and moral issue of the hour in the suppression of the whole liquor traffic as an aid to the winning of the war.

This is the only sound position for any honest-minded newspaper.

On and after August 1 subscription price will be \$6.50 per year in the United States.

Germany The World's Blackest Criminal

Believing that Secretary Lansing's address and the other special articles printed in our issue of July 4th gave an official and comprehensive resume of the whole origin and meaning of this war, we have anticipated the demand for them by putting them in the permanent and convenient form of a 28 page booklet.

These articles and letters are by the following leading men of our country:

HON. MYRON T. HERRICK,
Former Ambassador to France.

CHARLES M. SCHWAB.

REV. ROBERT STUART MAC-
ARTHUR, D. D.,
President of the Baptist World Alliance.

HENRY A. WISE WOOD,
*Chairman, Conference Committee on
National Preparedness.*

HON. ROBERT LANSING,
Secretary of State.

Also an Editorial which attracted wide attention throughout the Country written by

RICHARD H. EDMONDS,
"The Only Peace Terms We Should Ever Consider."

15 cents per copy; in quantities of 100 or more 10 cents per copy, when shipped in bulk.

Published by
MANUFACTURERS RECORD
BALTIMORE, MD.

IN FLANDERS FIELDS.

RECENT publication in these columns of the beautiful and deeply-moving poem, "In Flanders Fields," has brought from a reader in Muncie, Ind., Mr. G. A. Ball, an informing note as to the personality of Colonel McCrae, the author of the poem, together with two answers which have appeared. To preserve the continuity of thought, the original poem is reprinted herewith, together with the two answers.

In his note Mr. Ball says:

"Lieut.-Col. John McCrae was born in Guelph, Canada, November 30, 1872. He served in the South African War as an artilleryman. He was on his way to Canada when the war began in 1914, and immediately upon landing he entered the Valcartier Training Camp and was commissioned a captain. Later he joined the McGill Hospital Corps, being a physician by profession, and went with his corps to France, where he rose to the rank of lieutenant-colonel. He died in January of 1918 at Boulogne, France, in the service.

"The inspiration for the widely-published poem written by him on the Flanders front in the spring of 1915 is thus explained by Sergeant Charles E. Bisset of the 19th Battalion Canadian Infantry, who had a copy of it with him on his visit to Indianapolis in May of 1918 in aid of the War Chest campaign, and which poem he frequently used in his speeches with splendid effect.

"On the Flanders front in the early spring of 1915, when the war had settled down to trench fighting, said Sergeant Bisset, 'two of the most noticeable features of the field were, first, the luxuriant growths of red poppies appearing among the graves of the fallen soldiers, and second, that only one species of bird remained on the field during the fighting—the larks—who, as soon as the cannonading ceased, would rise in the air singing merrily.'"

Herewith the poem by Colonel McCrae:

In Flanders fields the poppies blow
Between the crosses, row on row,
That mark our place, and in the sky
The larks still bravely singing fly,
Scarce heard amidst the guns below,
We are the dead. Short days ago
We lived, felt dawn, saw sunset glow,
Loved and were loved, and now we lie
In Flanders fields.

Take up our quarrel with the foe!
To you, from falling hands, we throw
The Torch—be yours to hold it high;
If ye break faith with us who die,
We shall not sleep, though poppies grow
In Flanders fields.

IN FLANDERS FIELDS—AN ANSWER.

In Flanders fields the cannon boom,
And fitful flashes light the gloom.
While up above, like eagles, fly
The fierce destroyers of the sky:
With stains the earth wherein you lie
Is redder than the poppy bloom
In Flanders fields.

Sleep on, ye brave! The shrieking shell,
The quaking trench, the startled yell,
The fury of the battle hell
Shall wake you not, for all is well.
Sleep peacefully, for all is well.

Your flaming Torch aloft we bear,
With burning heart an oath we swear
To keep the faith, to fight it through,
To crush the foe or sleep with you
In Flanders fields.

—By C. B. Galbreath, Librarian of the State of Ohio.

AMERICA'S ANSWER.

We heed the call of Britain's dead
On Flanders Fields, where allies bled
And died the death of soldiers brave.
The sacrifice supreme they gave
Where ran their blood like poppies red,
On Flanders Fields.

America now comes with all
Her manhood's flower, prepared to fall
If need be, to avenge the toll
Ye gave amidst the battle's roll
On Flanders Fields.

With you we grasp the torch that came
Back from your dead, and with its flame
We light our nation's beacons bright.
In God We Trust. Our cause is right.
If we break faith, then be our shame
On Flanders Fields.

—By H. E. Nagley, Member Indiana State Senate.
May 26, 1918.
Indianapolis, Ind.

"JIM MOORE IS DEAD IN FRANCE," MURDERED BY THE WORLD'S BLACKEST CRIMINAL.

WHO was Jim Moore? Just one of a million men, clean of life, pure of heart, wholesome and wholesouled, who heard the call of God in this hour of world agony and said: "Here am I, send me."

What is said of Jim Moore, and it is only said for that reason, voices what could be said and what our nation shall yet have to say of hundreds of thousands of the very flower of our civilization. To thousands throughout Georgia who knew and loved him, Jim Moore was, and always will be Jim Moore. To the nation he will be Captain James S. Moore, Jr., of the United States Regular Army.

And Jim Moore, who in his young manhood had given his life to one of Heaven's most perfect gifts to earth, and then seen her soul wing its way back to the God who gave it birth, thought of what that woman's life might have been had she had to face the horrors which the women of Belgium had endured; and so Jim Moore—Captain Moore the Army called him—was eager for the fight, because he felt that he was going out in a holy cause to safeguard other women as sacred to their loved ones as had been the sainted one who for all too brief a span had given him a glimpse of what Heaven can be. In death Jim Moore must have said:

"O, thou soul of my soul, I shall clasp thee again!
And with God be the rest."

This was the living, burning crusader's spirit which filled the heart and soul of Jim Moore. But Jim Moore was only one of the thousands of such clean souls which have felt the touch of Divinity itself. Aye, there are a million more Jim Moores now in service, just as dear to the loved ones left behind as Jim was to the prattling boy who shall never on earth know father or mother; to the widowed mother who has seen her firstborn called to the Better Land; and to all the others whose hearts grow weary as they remember his ever-genial smile, his cheery words of greeting, his almost boyish enthusiasm coupled with maturity of action and judgment.

And Jim Moore has been murdered in France by the cold-blooded planning of many years by the accursed fiends who have murdered millions of Jim Moores in order to rob and loot the world.

These Jim Moores did not die because their appointed time had come; did not die because a loving God had so ordained it. They did not die in a war in which their enemies fought for principle, such as that which animated both sides in the Civil War. They died because the world's greatest murderer, a nation of murderers, had for fifty years or more been busy building a machine designed solely for murdering Jim Moores. This nation of murderers knew so little of humanity, it understood so little of honor and manhood, that it thought that to officially outrage women in the public marketplace, to mutilate helpless girls and innocent babies would make cowards of all men, and cause mankind to shrink in terror before the brutal, lustful deeds of its people.

But, thank God, 5,000,000 Jim Moores heard England's call for men, and millions more in France and Belgium and Italy and Serbia and Canada and Australia heard the challenge of the barbarian host and sprang to arms to prove that manhood still lives, that honor is not dead, that men will still fight and still gloriously die for the right. And now Americans like Jim Moore are in the great crusade, and, thank God! though we waited long, we will now seek to atone for our delay.

Millions will miss these Jim Moores; millions of hearts will ache, and many will break. Tears will flow as never before in earth's history. But what a record of duty done! What a story of sublime heroism! What a following of Him who upon the Cross of Calvary died to save men we shall have in the deathless heroism of those dear ones, chosen by God Himself to fight His battle against the fiendish murderers, the brutal beasts of crime who have murdered millions of Jim Moores, and will murder millions more! Other mothers must courageously say,

as Jim Moore's mother wrote: "It seems as if I can just feel my heart bleeding when I think of my noble, brave son. It was a noble death for a noble man, and I am proud to be the mother of such a son and I didn't want any other to take his place."

Now, shall these millions of Jim Moores, these most perfect expressions of the men into whom God has breathed the breath of life in its largest and divinest sense, go unavenged?

Shall the murderers go unpunished?

Shall the destroyers of womanhood be turned loose to breed the same breed of moral perverts?

Shall all the agony and all the bloodshed, all the broken hearts and broken lives, all the weight of years of woe that almost sinks the earth beneath its load of sorrow, count for naught?

Shall the sickening, namby-pamby, soft-hearted men and women who are afraid to face the reality of a just God, and who, therefore, preach only a God of weakness who never condemns the sinner, and ignorantly, perhaps, working in harmony with the pro-German propaganda, be permitted to preach to this nation and our Allies that there must be peace without punishment?

Against such a thought millions of Jim Moores would from their graves cry out that they had died in vain, and that all their sacrifice would have been but a colossal blunder if their murderers should go unhung; and thousands and thousands of women from graves dug by the power of the agony of their outraged souls and bodies would cry out to men and say: "Will you leave us unavenged and thereby put a premium upon the foul crimes which drove us into agonies ten thousand times worse than physical death?"

All the moral forces of the universe demand extermination of the leaders in these fearful crimes.

All history warns us that an uncrushed and unpunished Germany would mean the death and destruction of civilization for a thousand years to come.

And millions of Jim Moores and tens of millions of their loved ones call upon the men who in France and Italy and Belgium are fighting for God and humanity to say that there shall be no premium upon crime through any peace by compromise.

And they who are doing the fighting will say:

"We propose to see this thing through, and no politicians, no weak-kneed men and women, no 'pacifists by nature and compromisers by habit,' no false idea of mercy shall rule in the settlement of this war!"

These millions of the living Jim Moores have the right and the power to say:

"Hands off! We are handling this job, and it shall not be settled until in Berlin we have hanged the leading criminals and exacted a penalty of Germany and its allies to the last farthing of their power to pay for generations to come. On to Berlin! Germany must be destroyed!"

And then these millions of Jim Moores shall not have died in vain.

Jim Moore, as he was known and beloved throughout Georgia—Captain James Stanley Moore, Jr., of the United States Regular Army, as he was officially known—was 26 years of age. Briefly, as the reason for using Jim Moore as a type of the millions of superb young men of our country, we take from the Atlanta Journal, with which he was connected when he entered the war, a few statements, merely because they are typical of what could be said of these other Jim Moores, these splendid characters which make up the American Army. In a two-column story about his death the Journal said:

Those who knew him best loved him dearly, with a tenderness for his boyish, brave heart that never failed to shine from his clear blue eyes, with admiration and respect for that stalwart American manhood which was the very warp and woof of Jim Moore's spirit. And these cannot hope to put into words the love they bore Jim, or that nobility of character they knew was his. If anything would express it, it is a verse of Kipling's:

"He scarce had need to doff his pride or slough the dross of earth,
E'en as he trod that day to God, so walked he from his birth—
In simpleness and gentleness and honor and clean mirth."

"In Jim's death there is that one consolation that

must succor any whose dear ones fall in France—that no death could be braver, better or finer. Certainly for none is such a death more fitting than for Jim Moore. He himself would have chosen it.

"Into life and into the things of life he put the best that he had, and put that hard. He was a fighter, but cleanliness and fair play were his gospel, and with these things he combined a gentleness, an unselfishness and a tenderness that made him doubly dear to all who knew him. That high courage and that golden heart which were Jim's throughout his college days he took with him into every field he entered."

"No member of the Journal organization who knew Jim but feels the better for having known him, and none but whose heart today is sore and lonely at his death."

"Jim's record in the army might well serve as an index to those manly attributes of character which were his in all their strength. After only a brief period of training he was promoted from second lieutenant to first lieutenant, and within a few months had won his captaincy in the Regular Army. For several months last fall and winter he was at Fort Oglethorpe in command of a company of the Sixth United States Infantry. When this organization was sent over early last spring it was safe to say that no member was more jubilant than Captain Moore, and when he finally reached France and the prospects of actual battle against the Boche were imminent, his letters rang with the joy of service."

"You would be surprised to know what marvelous things the Americans are doing," he wrote to a friend on April 7. "They are the greatest exponents of cleanliness and progressiveness in the world, and that is why we will win. You would swell with pride at the clean moral standard and record of our army over here. I am hoping to see some fighting in a short time, and that is what I came for."

"These letters of his home, the boyish, brave letters written in pencil because of the press of time and work, never failed to tingle with the finest spirit of the American soldier and with another golden spirit that was Jim's very own."

"The Huns will be whipped," he wrote. "By every God there is we will lick 'em, if it takes a century! Nobody over here pays any attention to the peace talk. They want to fight, and the quicker the better. France is full of Americans, all smiling, happy; tanned to a finish; square-jawed and shouldered."

Editorially the Journal, in closing a high tribute to Capt. James S. Moore, Jr., said:

"His letters home breathed the cheer and great-heartedness that made his life a blessing to all who came within its glow. He looked upon duty at its grimmest with steadfast and shining eyes, not as a task or hardship or danger, but as a glorious chance to serve his country and prove his soul. 'Jim,' as we affectionately called him, was a friend to trust, a friend to admire, a friend to love, a friend to remember everlastingly. He has gone before us in his starry youth as one of the deathless company who 'shall not grow old,' as we that are left grow old:

"Age shall not weary them, nor the years condemn.
At the going down of the sun and in the morning
We will remember them."

A MINISTER WHO IS DOING HIS PART.

A MINISTER who is seeking to do his part for the salvation of the world from German damnation is Rev. John W. Moore, pastor of Trinity Methodist Church, Charlotte, N. C., who, under date of July 9, writes the MANUFACTURERS RECORD:

"As a reader of your wonderful paper and public speaker for all the national causes, I write to ask you please to send the MANUFACTURERS RECORD to the two following gentlemen:

"S. C. Black, Denver, N. C., R. F. D. No. 2.

"L. A. Womack, Denver, N. C., R. F. D. No. 1.

"Let subscriptions begin with last week's (July 4) number, if possible, as I want them to see the article on violating women in Liege. Am sure if they can read that number they will send you longer and more subscriptions. I shall use my every copy as I did last Saturday, when I gave out 11 copies in a country district which was lagging behind badly."

We regret to learn that there is any section of North Carolina which is lagging behind in patriotism, and yet we know that there are sections in all parts of our country of which this is only too true.

The enthusiasm of the real patriots of the country is so great that sometimes public men, even President Wilson, do not realize to what an extent the lack of patriotism and enthusiasm for this war still exist in the districts which have not come into touch with the living, burning issue of the hour.

GERMANY'S PROPAGANDA WORK GRADUALLY BECOMING REVEALED.

THE revelations concerning the purchase of the New York Evening Mail, which prior to that had been one of the reputable leading papers of New York, by German money and for the purpose of pushing the German propaganda in this country, opens up a broad field for speculation as to how wide were the ramifications of these agencies which sought to mislead this nation in the interest of Germany. The New York Tribune quotes Rudolph Hecht, a banker now interned, as having stated that \$50,000,000 was available for this propaganda work, Hecht himself, it is understood, being one of the men who through the sale of German bonds or in other ways provided a large proportion of this vast corruption fund. The Tribune says:

"Much of this money was expended on the purchase and subsidizing of newspapers and periodicals which before the United States entered war had been pro-German, some of them rabidly so.

"When war became absolutely certain in the early part of 1917, those who had this money and had expended much of it were confronted with the necessity of arranging some method by which the properties they had acquired might be conserved for use during the war and after."

According to the Tribune informant, who in the past has proved to be well informed on these matters, von Bernstorff and his aides based their program on the theory that, "though they failed to keep the United States out of the war, they may help us get peace." Accordingly they held out a course of action for friendly newspapers and periodicals on these lines:

"Support the war and be loyal to the President in all direct statements.

"(1) Give prominence to every movement, radical or otherwise, that is calculated to split Americans into groups and befog the real issue.

"(2) Give prominence to defeats of the Allies and of defects in their organizations and plans.

"(3) Give prominence to untoward events in the internal political and social life of the Allies.

"(4) Give prominence to every peace movement, whether it be official or backed by groups having no official standing.

"(5) Be prepared when real peace proposals come, for Germany will ask for more favorable terms than she has any right to expect. Assist in getting these terms by opposing the stated proposals and suggesting more liberal terms than extreme Americans or Allied governments may wish to insist upon.

"(6) Preach good-will toward all men once war is over, particularly toward Germans, thus protecting Germany and Germany's manufacturers from the to-be-expected consequences of the war. In this connection oppose any proposal for an economical or trade alliance against Germany or boycotts against German goods after the war."

These pro-German activities were far-reaching in effect. Not for many years, probably, will we ever be able to fully understand their extent. But here and there evidence of pro-German work was so clear and distinct that it is rather surprising that the Government had to wait this long before it was able to prove the case against the Evening Mail. It should carefully investigate other papers which are apparently following the exact line of procedure laid down by Bernstorff in these regulations. Organizations of many kinds were brought into existence by pro-Germans, posing as peace propositions, designed for the express purpose of deceiving the public and misleading the nation into a belief that they were intended purely for peace and were not pro-German in their activities. Day by day the facts in regard to many of these pro-German movements are being revealed by the work of the Secret Service Bureaus. From the very beginning the MANUFACTURERS RECORD had a clear conviction that much of the propaganda work that was being pushed in this country in the winter of 1914 and 1915 had for its object no other interest whatever than a peace based on Germany's terms, which meant a peace by the death of civilization and the dominance of Germany throughout the world.

Some of the people who pushed these organiza-

tions claimed to be Americans, but were so intensely pro-German that they could not think straight on any subject, since they were dwarfed and twisted by German thought.

How far-reaching this German propaganda has been we shall not know probably until long after the end of the war. Some people innocently fell into the trap of this German propaganda, and, being played for suckers, eagerly snapped at the bait. Some were merely narrow-visioned souls whose brain did not grasp the meaning of the war, and like poor, simple fools they were led around by the nose and made to talk for Germany or for a German-made peace.

There was an organization in Baltimore known as the Organization of American Women for Strict Neutrality. Its president was a rich woman of German parentage, intense in her devotion to Germany and her hatred to England. One of its active members was a German baroness living in Baltimore and likewise an intense pro-German. This organization flooded the land with petitions in favor of peace. It filled the billboards of the country with misleading posters designed for the express purpose of misleading the public and creating an absolutely false impression, making some weak-minded people believe that the President was seeking to prevent the shipment of munitions to the Allies, and that therefore they were asking the nation to uphold the President, for the heading of the poster was "Uphold the President." As a matter of fact, the whole scheme was a false proposition worked by the German propaganda for no other purpose than to serve the ends and aims of Germany's war of barbarism. Within a few days after the organization began its campaign, which was managed from the home of its president, the MANUFACTURERS RECORD editorially denounced the work of this organization, as it sought to mislead and deceive the public.

Though this organization is quiescent at present, and possibly has passed out of existence, its work, so long as it was in active operation, was in keeping with all the diabolical plans of the German propaganda which sought to mislead the nation in the interest of Germany and work for German peace on the basis of the destruction of all civilization by the fearful barbarism of Germany.

Any organization of this kind which was in existence during the war, and any man or woman connected with such organizations, if they have not already been under Secret Service surveillance, should be watched with extreme care and all their movements controlled by the Government in order that they may not continue aggressively, if more secretly, their propaganda for Germany.

We may rest absolutely certain that as "the stuck pig squeals," so Germany will squeal when it once realizes that it is doomed to an overwhelming defeat, and that in every part of the world, wherever a pro-German lives, there will then be emitted the poison of an effort to save Germany from the punishment of its crime. The propaganda will work in many ways, but it will work unceasingly. It will work through pulpit influences, through newspapers, religious and secular. It will work in the quiet and devious ways in which the devil does much of his work. Here and there it will drop a word that Germany must not be punished; that Germany has suffered enough, and finally it will say that the German people must not be penalized; that they were innocent, helpless-victims of the military power; that we must love our enemies, though God never told us to love the devil. And in all of these ways the German propaganda will continue its activities.

It is well, therefore, for the Government, if it has not already done so, to follow up every pro-German who has not yet openly repented of his partnership with Germany's crimes, and the members of every pro-German organization, whether of the German-American Alliance, the Sin Feiners, the "Organization of American Women for Strict Neutrality" and others, in order that it may know exactly what these people are doing at every moment.

On and after August 1 subscription price will be \$6.50 per year in the United States.

THE GERMAN "GOTT" NOT OUR GOD.

Charleston, W. Va., June 22.

Editor Manufacturers Record:

I am enclosing my check for \$6 to cover account. Your publication is doing a wonderful work. It ought to be in every home, office and business institution, and the editorials appearing on the front cover should be reproduced in all the newspapers published throughout the country. I like the way things have been moving for the past week, the rain is raising corn and potatoes over here, and the river and "hell" over there, from which it would appear that "Gott" is no longer with "Bill Kaiser." May you continue to pour on the oil and set 'em afire!

M. F. MATHENY.

Mr. Matheny has made one mistake. As Dr. Hills so clearly explained lately, the German "Gott" is not our Almighty God, whom Christians worship, but is our Devil, and the Devil seems to be still in close touch with the Kaiser, though the latter is outstripping the former in the race for infamy.

A 16-Page Pamphlet

Germany— The Super-Fiend

A Nation Gone Mad in Its
Lust for Power and World
Dominion.

A discussion of the Fallacious Doctrine that "Might Makes Right" and "As the State Can Do No Wrong, if the State Orders Crimes Committed, It Ceases to Be Crime."

With a view to bringing important articles and editorials bearing on the subject into handy form for distribution, the Manufacturers Record has republished in a single pamphlet the following:

"The German Nation's Brutality a Natural Product of German 'Kultur.'"

"The Degradation of Childhood and Womanhood by Germany."

By Dr. Anna Howard Shaw.

"Confirmation of Thyssen's Damning Revelations of Germany's War of Murder for World Conquest."

Including views of Otto H. Kahn, of Kuhn, Loeb & Co., and the revelations of Dr. Muehlen, former director of Kroppe.

"An Exegesis of German Kultur."

By Rev. E. Y. Mullins, D. D.; President Southern Baptist Theological Seminary.

"Trying to Repeat in America the Ruin Wrought in Russia."

"We Must Fight the Blood Lust of the German Tiger Unto His Death."

"Time to Think Straight as Well as to Shoot Straight."

"A Slander on The Yellow Dog."

"The Fighting Eagle of America."

This pamphlet is one of the most important we have published. It discusses the German philosophy which led to Germany's barbarism and presents many other facts which should be made known to every American. It is of equal interest to men, women and children. Read it and distribute it to your friends and employees.

Published by
Manufacturers Record, Baltimore, Md.

5 CENTS PER COPY
25 OR MORE AT 4 CENTS PER COPY
500 OR MORE AT 3 CENTS PER COPY

July 18, 1918.]

PLATINUM'S VITAL RELATION TO OUR ABILITY TO MAKE WAR.

HON. HENRY T. RAINEY of the House of Representatives, who has been making a vigorous fight to protect the platinum supply of the country available for war, in a letter to the MANUFACTURERS RECORD under date of July 13th, says:

I have read with much interest and also with great approval the article in the Manufacturers Record of Friday, July 12, on the subject of platinum. I sincerely hope you will keep up the work. The condition is alarming and has been made alarming by the bungling method in which platinum has been handled by the responsible departments of our Government, and also by the selfishness of persons interested in platinum.

We have been having hearings before the Ways and Means Committee on this subject, to which I hope you have access. I also call attention to my speech of June 7, 1918, printed in the Congressional Record of this session at page 8112. Since the delivery of that speech I am in receipt of information most startling with reference to the platinum situation.

Congressman Rainey's information on the platinum situation which he calls "most startling" should help to startle the country to the tremendous seriousness of the platinum supply. Every ounce of platinum that is now used except for war purposes is a direct contribution to the death of our soldiers.

We repeat what we said last week, and which cannot be repeated too often:

Every jeweler who uses even a fraction of an ounce of platinum for jewelry will be guilty of the blood of American soldiers.

Every woman who buys a piece of platinum jewelry will stain her soul with blood of American soldiers.

At the hearing before the Ways and Means Committee of the House recently, Dr. Herty, former president of the American Chemical Society and now editor of the Journal of Industrial and Engineering Chemistry, was asked as to whether he favored a tax of 250 per cent. on platinum jewelry. To this he replied, "Yes, and more than 250 per cent., a thousand per cent., or whatever per cent. is necessary to insure the prevention of the sale of a single piece of platinum jewelry."

In explanation of this, Dr. Herty suggested that in the event of such a tax, Government representatives should get together with representatives of the jewelers and determine on an equitable price for their stock of platinum jewelry, not, of course, including stones, and that all such platinum jewelry should be immediately bought by the Government at the price determined, and held by the Government, subject to distribution by Government agents according to war needs.

Congressman Claude Kitchin wisely suggested at this stage of the investigation the passing immediately of a special emergency act to give the Government complete control of the platinum situation without waiting for the enactment of a revenue bill. As the matter now stands, those who are tested with authority have adopted a tremendously dangerous policy of living from hand to mouth as regards supplying the Government's needs for platinum. We should strive for the immediate building up of an adequate supply for the needs of war by the withdrawal from public sale of every article of jewelry made of platinum.

It is altogether possible that the Government will have to ask every patriotic man and woman in the country owning a piece of platinum jewelry to turn in the platinum. This should not come except as a last resort, but not another piece of platinum jewelry should be sold. So long as the Government is leaving the present stock of platinum jewelry for sale in every jewelry shop in the country, those who own platinum jewelry bought in the past cannot, of course, properly be asked to turn it in to the Government.

Every day of this war strengthens our belief in the long and desperate character of it, and the tremendous danger which faces us if we do not

plan on a broader scale, and for a greater army than we have yet outlined. We believe that at the present time the Government should take into account the necessity of not stopping short of an army of ten million, one-half in France and one-half in training to be sent forward as rapidly as needed to fill in the gaps. Every plan made by the Government for explosives, for arms big and small and for ships should be on this enormously big scale, and before we get through it may take more than ten million men.

It matters not what the cost in money may be, provided the money is wisely expended, but it matters tremendously whether we shall fail to develop the potential power of our fighting ability through such inadequate handling of the platinum situation, as a type of some of the things that are left undone in working out our great war problems.

The majority of American people have had no thought that platinum was absolutely essential to our power to make war, even the War Industries Board has not seemed to comprehend the seriousness of this situation, or else it would surely have acted more quickly and more aggressively. Every hour lost in commandeering every ounce of platinum in the hands of every jeweler in the United States and of every other dealer in platinum means the weakening of our fighting power, and means that Germany is thereby relatively strengthened.

In pamphlet form available for distribution

The Most Damning Revelation of Germany's Turpitude Ever Published

Turpitude — Century Dictionary Definition: Inherent Baseness or Vileness; Shameful Wickedness; Depravity.

A Confession from a Partner in a Nation's Crime

August Thyssen, a leading steel manufacturer of Germany, discloses the details of a plan for world domination, entered into in 1912, between the Kaiser and the business men of Germany.

You will do your country a great service by reading and distributing this pamphlet with its amazing revelations of Germany's determination to bring on this war in order to conquer and loot the world.

5 cents per copy

25 or more at 4 cents per copy

500 or more in bulk at 3 cents per copy

Published by
Manufacturers Record Publishing Co.
Baltimore, Maryland

COMMENDATION AND CONDEMNATION IN STRIKING CONTRAST.

SOME striking contrasts as to the way different people look at every question presented is indicated in several letters recently received regarding subscription rates and new postal regulations.

Mr. H. H. Shackleton, general manager of the Rome & Northern Railroad Co., writing under date of July 8, said:

"I note from the last issue of your paper that you are advancing your rate on subscription to \$6.50 per year.

"I have wondered why you have not done this before, as I realize the fact that the subscription price of \$6.50 is cheap for your very valuable paper. I cheerfully subscribe for the advance, and trust that all your subscribers will do likewise. The patriotic stand taken by your paper should be encouraged by all loyal Southern business men."

The spirit shown by Mr. Shackleton is, we believe, in harmony with the views of the vast majority of our subscribers. Another letter singularly appreciative of the necessity of an increased income, but going very much further in stating the case than any other letter which we have received, is one from the Bosworth-Ard Machine & Foundry Co., Anniston, who, writing under date of July 13, said:

"We note in your issue of the 11th instant that an increased subscription price will become effective August 1.

"We deplore any action by you that would tend to hold your circulation down, and would much prefer doubling our advertising space or paying a higher rate for same to assist you in wider circulation.

"We, of course, know that you must have increased income to meet present conditions."

Here is a wholly voluntary suggestion that this important machinery concern, appreciating the desirability of a wide circulation of the MANUFACTURERS RECORD in the interests of the nation, would have preferred to double its advertising space or pay a higher rate for its advertisement than to see an increase in subscription price, which, it is feared, may possibly lessen the steady expansion of our circulation.

We do not believe that the fear of this company will be justified, for we believe that the subscribers to the MANUFACTURERS RECORD are sufficiently interested in its work to renew at a higher rate, and to do, as many of them have been doing, make an earnest campaign to induce their friends to subscribe. But certainly this company has shown its high appreciation of the work we are trying to do by its voluntary proposition to double its advertising or to pay a higher rate. The position taken by that company is in striking contrast with letters from two or three manufacturing concerns.

The situation is this: For some years there has grown up among industrial publications the custom of sending copies of their papers to the various branch offices of advertisers. The Postoffice Department recently notified the publishers of industrial journals that only one free copy could be sent to any advertiser under the second-class postage rate. Added to this is a notice from the War Industries Board to all newspapers that only one copy should be sent free to any advertiser, this being done for the purpose of conserving the paper supply of the country. Despite these two notifications, one from the Postoffice Department and one from the War Industries Board, two or three concerns have been very caustic in their letters to the MANUFACTURERS RECORD because we declined any longer to furnish them the additional free copies which they had heretofore been getting. Having been accustomed to taking the full pound of flesh, they wanted to adhere to the custom, despite the rulings of the

Postoffice Department and the War Industries Board.

One or two of these concerns took the ground that it would be within our right to mail the copies to them, provided we stamped the copies, which would mean five or six cents extra for each copy, and thus give them the benefit of the free copies which they had heretofore been receiving. They took the ground that we were entirely too prompt in complying with the Government's directions, and in general displayed a rather aggressive spirit of domination. They wanted these extra copies, but they wanted them free, because under the old custom of many years they had been getting them free, not taking into account the changes wrought by war and by Government orders.

The spirit thus shown seems to have been fermented by a small number in one or two limited localities, for nearly all advertisers promptly and graciously accepted the notification of the change. We do not believe that the chief executives of the few corporations, which are large concerns, would take so narrow a view, for we believe that they have souls, even if some in their management make people at times feel justified in saying that "corporations have no souls."

Evidently these few people did not believe in the Declaration of Independence for the Publishers of America by the MANUFACTURERS RECORD of July 4, and they still believe that, though they would not ask their grocer to give them three pounds of sugar free when they had paid for only one pound, they are still willing to urge that newspapers struggling under many hard burdens must give three to five copies free, when under the law they are permitted to mail only one copy free under second-class postal rates.

THE AMERICANIZATION OF FOREIGN-BORN ESSENTIAL FOR AMERICA ITSELF.

THE Department of the Interior, through its War Work Extension Bureau of Education in connection with the Americanization Committee and the Committee of the United States Chamber of Commerce, is planning a great work for Americanization. Mr. Frank Trumbull, one of the leading railroad men of the United States, is chairman, and Mr. Trumbull and those associated with him in the National Americanization Committee are doing their utmost to co-operate with the Department of the Interior in this Americanization work.

Broadly stated, the work of the committee is to Americanize the aliens in America. This does not refer to the alien enemies here; they must be handled by the Government itself. But there are millions of aliens of neutral countries living in America and doing a large amount of the work that must be done in our shops and in other lines of activities. We have, too long for our own good, left the alien to care for himself, and now we are paying the penalty for our shortcomings in this respect.

The work of this committee among the foreign-born in America, which sounds a little better than to call them aliens, is to create among them a better understanding of America and of their duty to America, while at the same time giving to them the opportunities and facilities to become Americanized. This committee is seeking to unite in service for America the different factors of foreign-born and to minimize in each race the antagonism due to old-country conditions under which they were born, to cement the friendships and discourage the enmities existing among these races and weld them together in the great melting pot of America for America and for civilization.

While this is a part of the work which this committee is doing, it is, at the same time, seeking to create in America a better understanding of the foreign-born living here. American citizens, as a whole, know less of the foreign-born among us than

they know of us. We bemoan their lack of interest in and appreciation of America. We bemoan the fact that they do not do all the things which, as Americans, we wish they would do. But we stand at a distance and practically do not come in touch with these foreign-born settlers. They have come here mainly for the purpose of making a new home in America, but, so far as their treatment by the majority of Americans is concerned, they are living in what is to them an alien land, where the welcome and the co-operation which they have a right to expect is not given or is given but niggardly. These people should be given every possible opportunity for educational, moral, religious and financial development. Every factory in which alien or foreign-born people are employed should have a plan for bringing them into a closer relation with the true life of America. They should be treated as one who moves into a new and hospitable community expects to be welcomed and treated by the people already living there. Schools and churches and hospitals and homes should make them welcome. One of the greatest romances in all human history, doubtless the greatest, is the settlement in America, and their success here, of millions and millions of foreign-born. But there are other millions who, for one cause or another, have not become fully Americanized.

The Americanization Committee of the United States Chamber of Commerce is carrying on a broad campaign now, to be supplemented by the Department of the Interior, to break down the barriers of alienism which have kept these foreigners from knowing each other and from knowing Americans, and to train them into a realization of what American citizenship means.

Every foreign-born man or woman in America is a potential asset of great value or a potential liability of still greater danger. Realizing this, the Americanization Committee of the Chamber of Commerce is seeking to enlist the co-operation of all the commercial bodies of the country, of all employees of labor, of all the religious and educational force of the country, that through the great melting pot there may pass these foreign-born people and fused into homogeneity of pure metal devoted to America, their new-found home and the home to which they and their children should henceforth forever look as their country and of which they might sing, in heart and spirit, even if they cannot sing the entire anthem, "My country, 'tis of thee, sweet land of liberty." It is true that their fathers have not died for this land of liberty, but they have sought this land of liberty for liberty, for freedom of opportunity, and in giving themselves to America they have given all that is in them, and whether they become a blessing or a curse to America will depend upon whether America becomes a blessing or a curse to them.

WHAT "THE CLEAR LIGHT OF HISTORY" WILL REVEAL.

IN time perhaps even the Senate committee will discover that the conduct of the war has not been altogether a failure.—New York World.

In time it is certain that the nation will give unstinted praise to Senator Chamberlain for letting out just enough of the real situation to bring about a complete change, and in time President Wilson will be praised for completely reorganizing the War Department while our pacifist Secretary of War was in Europe. To Stettinius, Crowell, Goethals and other men of their ability, and not to Baker, will be given the praise of the historian for the splendid work now being done by the Army. Even now Baker is failing to press for the creation of an army big enough to meet the crisis we are facing. It is impossible for him, constituted as he is, to think broad enough and act big enough to atone for the fearful delays which will cost us many lives that might have been saved. Unpreparedness was a crime against every soldier who must now take chances infinitely greater than would ever have been necessary if we had properly raised, organized, equipped and trained an army. Then we might have had a million trained and hardened fighting men in Europe instead of the number now there, a large proportion of whom are not hardened, drilled and trained men.

SOUTHERN MANUFACTURERS TO SEEK WAR WORK.

REPRESENTATIVES of the business and industrial bodies of twenty Southern cities met in Birmingham last week and formed an organization at the suggestion of Zone Director Aldrich for the better co-operation of Southern industries with the Government in the converting of non-essential plants into the more essential lines of war work.

Unless Southern plants engage in essential war work it is stated that many of them will be in danger of closing entirely for lack of fuel and materials. To forestall this danger of curtailment of industrial activity and to retain the labor now employed in the South, manufacturers and business men from Alabama, Tennessee, Mississippi and Louisiana met and formulated an organization and began immediately to work out plans for securing war contracts.

It was pointed out that 70 per cent. of the manufacturing of the country is in the East, and because of the congestion there further expansion is impossible with present railroad facilities and fuel supply, and it is only a question of whether new essential industries absolutely necessary for carrying on the war will look to the South or West, and it is the purpose and intent of the organization to see that the South not only is able to keep its manufacturing plants in full operation, but to get an opportunity to secure these needed additional essential war industries.

In addressing the meeting Mr. Aldrich said that the manufacturers and business men must seriously get down to work, carrying out the Government's program.

The zoning of the country is for the purpose of encouraging the business men in this territory to organize and bring about co-operation with the Government and to enable them better to serve the Government in the war program, to disseminate information and to aid in converting all industries into essential establishments, and the regional director and the advisory board were intended to help the manufacturer and the Government by ascertaining what is and can be made in each particular locality and the capacity of the plants; to gather and compile facts and conditions affecting the industrial situation in the zone, and to furnish the Government with a list of factories, their products and capacities.

The organization will be a part of the War Industries Board, and it will have important work to do. He suggested that an executive board, consisting of one member from each State in the zone, to co-operate with the zone director, and an advisory board for each State, composed of one representative from each civic organization in that particular State, be created.

SPREAD THE FACTS EVERYWHERE.

If your soul is stirred by the awful realities of Germany's barbarism as published from week to week in the Manufacturers Record, pass your copy on to others that those who are not subscribers may learn the fearful realities against which our nation is fighting. Let no single copy be wasted. Pass every copy on to someone else and urge them to send it on to others, that in every home the story as given in every issue of what this war means to every man, woman and child in this and in every other land may be fully understood. Not until then will our nation awake. You can help in this way to win the war.

Broad or Narrow Sales Policies for American Business Men. Which Do You Choose?

THE Public Ledger of Philadelphia interestingly discusses some of the paradoxical developments of selling methods of American business interests since the beginning of the war, and on this point says:

"There have been radical changes in commercial and industrial life, some voluntary and some involuntary; but the consensus of opinion among those who formulate the policies of successful business enterprises is that we needed just some such spur of necessity as the war to teach us our own powers in manufacturing and selling efficiently, in turning waste into profit, in reducing the margin of uncertainty. Curiously enough, this reduction of the margin of uncertainty is taking place generally throughout the business of the country in the midst of the most uncertain times it has passed through since the close of the Civil War.

"One may feel the pulse of this development in a study of the advertising appearing from day to day, week to week and month to month in the public press, for it is chiefly through that medium that every business which has expanded beyond the limitations of the neighborhood store must tell its story to the buying public. If it tells no story the busy public knows not of its existence, and follows the line of least mental resistance to the door of the competitor who does announce the whys and wherefores of his goods and his readiness to serve.

"There was a sudden and hard drop in the country's aggregate volume of national advertising as the far-reaching significance of the war period was felt first. There was a hesitancy. Some enterprises held off to see what would happen. Others saw ahead of them an excess of demand over possibility of supply which would make advertising 'useless and superfluous.' Still others—with broader vision, it already is apparent—maintained their advertising with stout hearts, and in many cases actually seized the bull by the horns with increased appropriations.

"Now, unquestionably, there is a general swing back to advertising. Old national advertisers are increasing their appropriations. Businesses which used to advertise but which slackened their advertising in recent years, have resumed heavily. Enterprises which have never advertised before have entered the field in the face of the hopelessness of satisfying demand for the period of the war. * * *

"The world is moving fast and furiously today. We are crowding ten years' worth of living into one. Things are being turned upside down overnight. The public's memory is short normally. With the rapid disappearance of old lines and of the advent of new it is relatively much shorter. The public is resigned to changes, and is less than ever inclined to mourn the disappearance of a familiar product or to waste time searching through the retail trade for a favorite brand. More than ever before it behooves the manufacturer to keep his product prominently before the public, lest it be assumed that this article, too, has given up the ghost.

"Note the maintenance of Victor Talking Machine advertising in the face of inability to supply demand. Note the heavy resumption of advertising by the makers of Borden's condensed milk. The New Jersey Zinc Co. is spending good money just to tell the public that its product is used in protecting telephone wires. Bauer & Black, manufacturers of surgical dressings, are telling the public that adhesive plaster tape may be used to mend tears in clothing by attaching it to the under side, to mend breaks in rubber, to insulate wire, to mend toys, to provide grips for tennis rackets and golf clubs, to seal fruit jars, to form binders for loose sheets of paper, to stop leaks in metal pipes, etc.

"It's the firms which advertise during the war which are going to get the big jump on their competitors when the pistol cracks in that big race for business which follows."

We believe that no greater evidence of weakness on the part of this country could be given than a slackening of the publicity work of business men as well as of the nation itself. This is a time when men and women are reading and thinking as never before. All reliable publications are studied with more intense interest than ever in the past. The printed word comes with new and tremendous force. Every man and woman watches every item of news bearing on the life or the death of our soldiers and on everything which pertains to the great issues of the hour at home as well as abroad. Though here and there business must shift from one line to another and men must change employment from one character of work to another, there is a greater expenditure of money than ever in the nation's life. Not simply by reason of the immediate possibilities of broad publicity work is advertising of value. The business men of this nation need in this plastic period when men are reading and thinking to stamp indelibly upon the minds of the people the power of the printed word through the advertising pages of legitimate publications.

Five of the leading packers of the country recently joined in an advertisement setting forth a reply to some of the charges made against them by the Federal Trade Commission. This reply was to many people a revelation as to the amount of business done by these packers and of the small percentage of profit on the gross business. A leading Baltimore banker, who makes a specialty of studying the business interests of the country, expressed to the writer amazement that these packers had done business on so narrow a margin of profit. But the packers were too late. They waited until the damage had been done by a charge which we believe to be unjust, and then they undertook to counteract it. The statement they have given to the public is good and helpful, but it should have been made in advance. The facts presented in their joint advertisement should have been placed before the American people many months ago, regularly and persistently, with many additional facts which could have been given.

Every business interest, large or small, should, through advertising to the limit of financial ability and the wisdom of the expenditure, intelligently present the facts which pertain to their work. It is through the display advertising columns of the best publications of the country that all business interests can most adequately tell their story and show the country what is being done for the nation's advancement by that particular industry.

The retail house advertises in local papers for the express purpose of creating an interest in what the merchant has for sale. But this is a narrow view of advertising. The broad national view is advertising which tells the public what the constructive forces are doing for the upbuilding of the nation and in helping to win the war.

Work of this kind counts not only for the present, but for the future, because we need as never before to educate the people of this country to an intelligent understanding of all the great business questions of the hour.

Political agitators, unwisely organized Washington bureaus or departments, and pro-German activities, disguised in many ways, are constantly seeking to flood the public with misleading statements regarding business, regarding food conservation, or food production, or profiteering, and it becomes the part of wisdom for all business interests as a regular persistent campaign to give the true facts to the public through the advertising pages of the leading publications of the country.

The business men of America have never expended one-half as much money in advertising as could have been expended wisely to their individual interests and to the betterment of the country. In this war time of tremendous activity in many lines of industry, when people are reading and thinking as they never did in the past, it is pre-eminently appropriate that broad publicity work should go on not only uninterruptedly as compared with the past, but on a much larger scale.

SPIRIT OF CO-OPERATION WHICH HEARTENS OUR WORK.

MR. A. C. PRICE, general manager of the Southern Well Drilling Co., writing from Rocky Ford, Ga., and enclosing a subscription to the MANUFACTURERS RECORD from a concern in that town who at his suggestion had decided to become regular readers of the MANUFACTURERS RECORD says:

"Send me a few samples of 'The Most Damning Revelation of Germany's Turpitude' and 'Germany—The Super-Fiend.' I am passing all my copies of the MANUFACTURERS RECORD along, and it is a common thing to hear expressions of great appreciation of the best work ever done by any magazine."

And to this he adds the names of other friends among whom he is working to induce them to subscribe.

The most gratifying feature of the work of this paper, to all connected with it, is this spirit of co-operation in seeking to broaden its circulation among people who may be interested in the fight which it is making in behalf of the nation's life.

MORE SHIPPERS AND FEWER RAILROAD OFFICIALS SHOULD BE IN RAILROAD ADMINISTRATION.

THE MANUFACTURERS RECORD entirely dissents from the wisdom of the decision of Mr. Walters of the Railroad Administration, as reported elsewhere, in the position which he takes in refusing to give any relief to road contractors who had made contracts in good faith based on freight rates existing prior to the recent 25 per cent. advance. Such a ruling is unjust to men who had made contracts which will now spell heavy losses merely because the Government arbitrarily and without warning advanced freight rates which in some cases are prohibitory, if not confiscatory.

The Railroad Administration needs to have more shippers injected into its management in order to avoid the arbitrary decisions now so often unwisely made by railroad officials who feel that they have full power to act because they are Government officials as well as railroad managers. There is much danger in this situation, and, while we give full credit to railroad managers for all that they have done in the development of the vast railroad business of the country, we do not believe that they should be so exclusively in charge of the railroad situation as at present. They now have a dominating power over railroads and freight rates infinitely greater than they could ever have expected to have prior to the control of the railroads by the Government.

We believe that the shippers of the country—shippers of grain and shippers of manufactured products and of mineral products—should have a voice in the Railroad Administration in order that the freight-producing people of the country may, in connection with the freight-handling authorities, be able to work out a system just to the railroads, to the Government and to the shippers. The present organization of the Railroad Administration does not give this wisely balanced control, and is therefore calculated to produce a degree of antagonism which will not be for the good of the country nor of the railroads, and which sooner or later, unless changed, will produce a very vigorous antagonism to the railroad officials now handling the work of the Railroad Administration.

JUNE STEEL PRODUCTION SHOWS DECLINE.

STEEL ingot production for June by twenty-nine leading iron companies, according to the monthly report of the American Iron and Steel Institute, was 3,036,930 gross tons, which is 46,900 tons less than the output in June, 1917. It is smaller than the output of each of the three preceding months, being 250,303 tons less than the production of May, 1918; 126,480 tons less than the April production, and 73,451 tons smaller than the March output.

Of the total gross tonnage of steel ingots for June, 2,235,202 tons were open-hearth, 786,380 tons Bessemer and 15,348 tons of all other processes, compared, respectively, with the tonnage for June, 1917, of 2,475,131 tons of open-hearth, 769,249 tons of Bessemer and 15,858 tons for all other grades.

Peerless in Patriotism.

[Texarkana (Ark.) Texarkanian.]

The press of America, with wonderful unanimity, is intensely patriotic. In no profession or line of endeavor are there fewer slackers. But among the great publications of this country, standing like an undaunted son of Anak, tireless, tense and peerless in patriotism, the MANUFACTURERS RECORD of Baltimore is the most conspicuous example.

Such is the estimate of The Texarkanian, after a careful study of its issues, week by week, since long before the war with Germany was declared. It ought to be in every American home. The fund of current information, involving war issues, it brings and the able and scathing way in which it exposes and denounces the unspeakable perfidy of Germany would be an inspiration to every reader.

On and after August 1 subscription price will be \$6.50 per year in the United States.

Dr. Muehlon, Former Krupp Director, in Bitterness of Soul Describes the Fearful Degradation of German People in Their "Lust for Power and Gain."

[Reprinted by courtesy of Philadelphia Evening Public Ledger.]

DR. WILLIAM MUEHLON, former director of the Krupps Works and an intimate associate of the great leaders in Germany, whose diary from the beginning of the war in 1914 in bitter denunciation of Germany for bringing on this war, as lately published, attracted widespread attention throughout the world, has now in an interview with a special correspondent of the Philadelphia Ledger stated and enlarged upon some of the statements made in his diary in regard to Germany's lust for power and gain which has sunk that nation to depths of degradation never known since the days of darkest barbarism.

Dr. Muehlon, like Lichnowsky and a few others who still have some conscience left, has felt compelled from his place of retirement in Switzerland to tell the world of the atrocities of Germany in order that the civilization of the world might be saved from the barbarism of his own country. His arraignment of Germany is worse than the damning revelations even of Thyssen in the vigor of language used.

"The Germans," said he, "have drowned all doubts and pangs of conscience in their brutal expectation of overwhelming their opponents, and have become like a herd of rapacious slaves gone forth to slay and devastate by the lust of power and gain."

This, says Dr. Muehlon, makes him despair of the German people; "for," said he, "they are really a race apart from the rest of mankind. The Prussian system of government has gradually transformed what was once a nation of poets and philosophers into a race of the basest materialists the world has ever seen; and the war has resulted in intensifying these evil characteristics tenfold."

No man in Germany or of Germany is in a better position to understand the characteristics of the German people than Dr. Muehlon, and to those who are trying to differentiate between German military classes and the masses we commend the following statement from Dr. Muehlon, in which he said:

"There is no difference in this respect between the financial magnate and the working man."

The entire dispatch of Mr. B. F. Kospoth, a special correspondent of the Evening Public Ledger, from Berne, Switzerland, copyrighted in this country, but published by permission of the Ledger in the MANUFACTURERS RECORD, is given herewith. It is of the most striking illustrations of the truth of all that we have said about the base materialism of Germany, and the lust of gain and power which has filled the souls of the people of all classes from the rulers to the peasants. Let us never forget that the whole German nation is rotten-hearted, and that we are fighting not the military part alone, but the entire German race, and even a Muehlon and a Lichnowsky do not redeem this Sodom and Gomorrah from the broad statement that the whole nation has sold its soul to the devil for the "lust of power and gain" individually and nationally.

By B. F. KOSPOTH,

[Special Correspondent of Evening Public Ledger in Switzerland.]

(Copyright, 1918, by Public Ledger Company.)

Berne, Switzerland, June 29.

About 30 minutes' ride by rail from the Swiss capital lies the little village of Guemilgen, just a few scattered houses amid pleasant, wooded hills, with a low, gray chateau hidden in a high-walled park. In this aristocratic country mansion, far removed from the maddening rumors of war, dwells perhaps the most interesting figure among the German political exiles now in Switzerland, Herr Wilhelm Muehlon, the ex-director of the Krupp works at Essen, whose revelations fixing the sole responsibility for the outbreak of the world conflagration on the Kaiser and his ministers recently caused almost as great a sensation as Prince Lichnowsky's damning evidence against the Berlin Government.

Here Are the Germans As Muehlon Sees Them

THE BASEST MATERIALISTS the world has ever seen, made so scientifically by the Prussian system of government.

RAPACIOUS SLAVES, who, driven by the lust of gain and power, go forth at Ludendorff's command, to slay and devastate.

BULLIES who cannot bear defeat nor long endure the horrors of war they gleefully bring upon others.

It is indeed a paradox most painfully felt by the rulers of Germany that one of the bitterest and most convincing accusations ever formulated against their criminal war policy should come from a man who for many years belonged to the board of directors at Krupp's, that vast commercial incarnation of the Teuton's lust for blood and domination, whose operations were ever shrouded in the deepest mystery and jealousy hidden from foreign eyes lest they detect the secret preparations for the enormous crime Germany was planning to commit against the liberties of the world.

Infuriates Kaiser.

I have been told by well-informed Germans here, and I am altogether inclined to believe them, that Herr Muehlon's sensational defection has roused the Kaiser to a greater pitch of fury even than Prince Lichnowsky's revelations, and that the German Government fears the former Krupp director in Switzerland more than the ex-Ambassador to the Court of St. James, whom it has at least in its power in Germany. The German legation at Berne recently sent Herr Muehlon, who is still of military age, a peremptory order to report at Loerrach, the German frontier station, and join the colors, but he refused to obey this somewhat naive command, knowing that "preventive imprisonment" was in store for him the instant he crossed the border. He has remained quietly in the handsome old chateau he purchased upon first coming to free Switzerland, for, unlike other fugitives from the Kaiser's tyranny, he managed to bring the greater part of his considerable fortune with him and can face future developments with the tranquil assurance of a millionaire.

The old chateau breathed an atmosphere of rural repose and almost egotistic isolation from the tragedy of our times when I rang at the gate, and yet at that very moment the destinies of the world were once more in suspense on the battlefields of France, and I found its owner fairly bowed down with the fateful burden of the hour.

No Parties in Germany.

"You find me in a state of deep depression," said this extraordinary man, who sacrificed the powerful friend-

ship of Krupp-Von Bohlen to his political ideals and resigned from the greatest war corporation in Prussia to combat Prussian militarism. "I can tell you nothing about the political situation in Germany. There is no political situation in Germany so long as this offensive lasts. The entire German people is once more hypnotized, as it was in 1914, by brutal dreams of conquest and financial gain. The Kaiser's words have come true: **There are no parties in Germany today. From the Junkers to the Socialists all are sunk in the depths of an almost inhuman materialism and calculating that the battles in France will bring them peace with world domination and fabulous indemnities.**

"Perhaps there was a time when the Germans were duped by the lies invented by their leaders and really believed they were carrying on a war of defense. After the collapse of Russia, which more than doubled Germany's military strength in the west, this fiction could no longer be upheld, not even by such an astute and unscrupulous statesman as Count Hertling. A certain amount of popular opposition against the continuation of the war became apparent in Germany after the conclusion of 'peace' with Russia and Roumania; it culminated in the recent great strike movement. But the Prussian military leaders and their political accomplices have not only triumphantly overcome this opposition against a new debauch of blood and brutality by arbitrary measures, but have succeeded in corrupting the entire German people by assurances of a smashing victory and the promise of a speedy peace with annexations and vast indemnities, introducing an era of unprecedented prosperity and high living for all classes of society in Germany after the terrible privations and misery of the war.

"And the Germans, drowning all doubts and pangs of conscience which years of disappointments and suffering had finally awakened within them in the brutal expectation of overwhelming their opponents by sheer force of numbers, have followed Ludendorff's lead like a herd of rapacious slaves and gone forth once more to slay and devastate, driven by the lust of power and gain. It is this that makes us despair of the German people!"

Speaks From Knowledge.

No Englishman nor Frenchman have I ever known to arraign Germany more mercilessly than this German who was once Krupp-Von Bohlen's right-hand man. And yet, chatting with him in his artistically furnished library, decorated with paintings by famous modern artists, while the fate of Europe hung in the balance on the battlefields of France, I felt that he must be right and able to sound darker depths in the Teuton soul than any other foreigner, however well acquainted with German conditions.

"The Germans—alas that I should be forced to say it who am a German myself!—are different from all other nations," Herr Muehlon continued:

"They are really a race apart from the rest of mankind. The good instincts they originally possessed and which were generally recognized a hundred and even fifty years ago, have been systematically perverted by their rulers. The Prussian system of government has gradually transformed what was once the 'nation of poets and philosophers' into a race of the basest materialists the world has ever seen. Materialism and cowardly submission to their rulers had become the dominant traits of the Germans long before the war. And the war, which has enabled the Prussian military and bureaucratic machine to suppress even the last remaining vestiges of individual liberty in Germany, has intensified these evil characteristics tenfold. There is no difference in this respect between the financial magnate and the workman."

"While in Germany I made no secret of my opinions in private conversation, and many of my business friends, all men in influential positions, heartily en-

dorsed them to the word. German Gov. they shrank business. Besides, we than we ever

"Take Hamburg, friend of mine the war at idem. But His great fe graph letter with pride, anything at doctrine the ters to show the same. services con archism, an and fewer frightful off

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dorsed them, but when I asked them to suit the action to the word and to proclaim openly with me that the German Government was alone responsible for the war they shrank back in fear and said: 'It is none of our business. We cannot risk offending the authorities. Besides, we are making more money through the war than we ever dreamed of making before.'

"Take a man like Herr Ballin, the director of the Hamburg-American Line. He was a good personal friend of mine. I have had many talks with him about the war and he always expressed perfectly sensible ideas. But I could never induce him to act up to them. His great fear was to lose the Kaiser's favor. An autograph letter from the Kaiser makes him fairly burst with pride, and he fears that if he should write or say anything at variance with the orthodox Prussian war doctrine the Kaiser would not write him any more letters to show to his friends. With the workingman it is the same. A miserable medal or decoration for faithful services converts him in a trice from socialism to monarchism, and the prospect of higher wages, better food and fewer taxes reconciles him with the idea of new frightful offensives, annexations and war indemnities.

Teutons Cannot Stand Defeat.

"Success or the conviction of success rouses all the brutal appetites which militarism has for years scientifically bred in the German people. Only reverses of fortune can drive this poison out of their system. And the Germans are different in this also from the western nations. They cannot bear defeat nor long endure the same horrors of war they gleefully bring upon others. Berlin would have cried for mercy long ago if it had been bombed as ruthlessly as Paris and London.

"No, the Germans will not stand much beating. They are bullies and will give in surprisingly soon once the fortune of war turns against them. If the German people can be made to understand that attacks like the present offensive of France will not bring them wealth, power and prosperity, but, on the contrary, more misery, heavier taxes and commercial ostracism even after the war, they will refuse to fight on any longer. But their mind is open only to materialistic arguments and all idealistic appeals to their conscience and sense of honor are absolutely vain. It is painful for me to have to say this of my own countrymen, but it is the truth."

This conversation with Herr Muehlon, who has recently followed up his memorandum by the publication of his German war diary, vividly and, I think, faithfully reflects the state of public opinion in Germany during Ludendorff's great attacks in France. The former Krupp director's statements are corroborated by information recently received here about political events in Germany which immediately preceded the great offensive. After the publication of Prince Lichnowsky's memoir and Director Muehlon's letters to the Chancellor there was imminent danger of rebellion in Germany if the intention of the general staff to sacrifice new hecatombs on the western front were carried out in the face of facts which at last made it clear to every German that he was not defending his country, but fighting simply to rob others of their homes and independence.

So the Government and the general staff for once took the Reichstag into their confidence.

On the eve of the first attack in Flanders the Imperial Chancellor, Count Hertling, and the Prussian Minister of War, the latter as the representative of General Ludendorff, unfolded their plans before the so-called "great committee" of the Reichstag. They insisted on the certainty of victory if the offensive were carried out and promised a speedy "German peace," bringing undreamed-of power and prosperity to all classes of the German population, which would otherwise, they said, be doomed to poverty and privations for a long time after the war. At the same time they gave the assembled Reichstag members clearly to understand that they were in any case resolved to suppress all opposition against the continuation of the war with the utmost military vigor.

Repulsive Materialism.

It will be worth remembering that Ludendorff's blood-thirsty onslaught on the Allies in the west found the full assent of the Reichstag, and that the representatives of the German people expressly sanctioned this fiendish sacrifice of hun-

dreds of thousands of men in the hope of at last realizing their materialistic ambitions.

A wave of repulsive materialism swept over all Germany, carrying everyone before it, when Ludendorff's poison gas shells began to rain upon the French, British and American trenches. The initial successes of the attack awakened all the evil impulses of the German people which had lain dormant during the long period of disappointments since the autumn of 1914. Ever since the beginning of the offensive the entire German press, the Liberal and Socialist papers as well as the Conservative organs, has voiced Ludendorff's promises of victorious peace with annexations and indemnities and glorified triumphant militarism.

"THE BRITISH ARMY OVERTHROWN: 100,000 PRISONERS, 500 GUNS CAPTURED."

"ON THE ROAD TO AMIENS."

"IMMENSE BOOTY IN FLANDERS."

"GLORIOUS AIR RAIDS ON PARIS."

"THE MARCH TO THE MARNE."

"LUDENDORFF'S TRIUMPH."

These are some of the bombastic headlines published during the first days of the German attack, not by militarist Pan-German papers, but by the socialistic Vorwaerts. And through all this military frenzy loomed the one great dominant hope that had become almost a certainty to the hypnotized German people: The capture of Paris and Calais and the Kaiser's peace imposed upon prostrate Europe!

Press Prussianized.

A few days before the second phase of Ludendorff's offensive set in with the attack in Champagne on the French and American troops, the Frankfurter Zeitung, the great German "liberal" newspapers, wrote:

The ideal aim of German strategy in this offensive is the military disarmament of our foes. Our general staff intends nothing less than the destruction of the British and French armies. Our great leaders no longer deny that such is their wonderful plan, and they are absolutely certain of being able to realize it.

Simultaneously the official Wolff Bureau published the following statement in a report on the military situation:

The intention of the general staff is to effect the complete and definite destruction of the military power of France and England.

The Vorwaerts finally, in a sensational editorial, confessed the unconditional surrender of the German Socialists to Ludendorff in these terms:

A peace of compulsion, imposed upon our enemies by force of arms, will leave many international problems unsolved; it will be a source of new dangers and place the governments of the future before the very greatest difficulties. However, so be it, if there be but peace! Now there is no other way to obtain peace but by victory on the battlefield, which has been promised us.

Even the Independent Socialists, those solitary up-right fighters against Prussian militarism, were forced to bow before the hurricane of chauvinism sweeping over Germany. Shortly before the beginning of the offensive a number of their candidates had been signally defeated in elections in Prussia and Saxony. Evidently deeply impressed by this manifestation of popular dissent, the Leipziger Volkszeitung, the chief Independent organ, published the following declaration:

It is an infamous calumny to say that the Independent Socialist party desires the defeat of the German armies and does not wish Germany to be stronger after the war and to stand firmly among the nations in the future. Every conscientious and honest politician must recognize that the Independent Socialists do not and cannot hope for a victory of the Entente.

Offensive Gigantic Failure.

These various statements are worth recording, because they reveal the spirit of materialistic unity and the vast hopes of victory and profitable peace with which all classes and political parties in Germany hailed Ludendorff's onslaught in the west, and, above all, because they also prove conclusively that this great offensive, precisely from the German point of view, has so far only been another gigantic failure, and will remain a failure even if the Kaiser's armies should advance still further. For Ludendorff has not succeeded in destroying the French and British forces, as he positively promised the Reichstag leaders and the German people he would, and peace—either German peace or what

Germans used to call a "peace of conciliation"—is today more utterly out of the question than ever before. The German leaders merely have one more colossal psychological blunder to their discredit.

The great German offensive, just because it brought the Kaiser's armies some unavoidable initial successes, has already had, in my opinion, at least one good result: it has definitely unmasked Germany and will render the future peace intrigues of the Berlin Government infinitely less dangerous.

It seems quite certain that Ludendorff will follow up his abortive military offensive by a great "peace offensive." There are infallible signs that this German peace offensive is coming. It is heralded this time, not by the Liberal or Socialist press, but, which is far more significant, by the Conservative papers, whose close relations with Ludendorff and the general staff are notorious. The Kreuz Zeitung announced in its issue of May 31:

"For the very reason that our successful attack has placed Germany in a favorable military situation, the time seems propitious for a peace offensive. Of course, this new peace offensive must be entirely different from the contemptible and ineffective peace proposals formerly tendered by our Government. This time we must formulate positive conditions and clearly publish our chief war aims, particularly against England. The statement of these war aims is easy if we base them on Germany's claim to undisturbed development in the future; our own interest forbids us to demand more than the protection of our vital interests and the elimination of our war losses. We cannot live alone after the war; our field of action is the world, and therefore we wish to come to an understanding with our foes which will do justice to our rightful claims."

What the Kreuz Zeitung means by guarded terms like the "protection of Germany's vital interests" and the "elimination of the German war losses" scarcely needs any explanation:

Ludendorff, through his puppet Hertling, is to demand an enormous war indemnity from the Allies, the annexation of the Briey-Longwy mining district from France, the coast of Flanders and a vast colonial empire in Africa, to say nothing of the formal recognition by the allies of Germany's conquests in Russia and Rumania. But an incurable duplicity pervades German diplomacy, and signs are not lacking that the Imperial Chancellor will shrink back from publishing Germany's lust of territorial and financial gain as brutally as the Prussian Conservatives demand and will again attempt to camouflage his peace propositions democratically.

The day after the publication of the Kreuz Zeitung's peace editorial the versatile Vorwaerts, forgetting that it had formally acquiesced to a Pan-German peace on the eve of Ludendorff's attack, likewise insisted on the necessity of Germany's attempting a new peace offensive in these sanctimonious terms:

"While the military offensive in the west at last—and, we hope, definitely—convinces our foes that all their hopes of defeating, destroying or disuniting Germany are vain, a diplomatic offensive should simultaneously seek to convince them that they have no oppression, injustice nor dismemberment of their national territory to fear from victorious Germany."

If any proof were needed that this socialistic declaration is but dust scattered to blind the eyes of the Allies it could easily be found in the telegrams sent by the Kaiser at various periods during the great offensive and in which that hysterical monarch, like Ludendorff, promises his people triumphant German peace. He telegraphed in May:

God will help us to fight on victoriously and to force our foes to conclude a peace which will be a source of glory and PROFIT TO GERMANY and her allies.

Kaiser's "Glorious Victories."

And to the German "Handtag," a general assembly of German business men from all parts of the empire, which had telegraphed him assurances of loyalty, Wilhelm II sent but a few days ago the following answering telegram:

"The glorious victories of the last months justify our claim to a strong peace which will open new roads for victorious German commerce and will guarantee full freedom of development to our marvelous industries."

After all this there can be little doubt what kind of peace the German Government will have in mind when.

Ludendorff's armies having been definitely stopped, it decides to launch its new pacifist offensive. That these peace maneuvers are more or less imminent is certain. According to my information, Count Hertling will, in carrying them out, strive to camouflage the undisguised brutality of the Kreuz Zeitung's demands with the hypocritical phraseology of the Vorwaerts. The German peace offensive will, furthermore, probably take the form of an ultimate desperate effort to divide the Allies by apparent willingness on the part of Germany to favor and spare one country at the cost of another.

If the Allies repulse Count Hertling's peace offensive with the same unity and gallantry with which they have frustrated General Ludendorff's attempts to destroy their armies, the German military party will have failed to fulfill either of the promises by means of which it obtained the consent of the Reichstag and the German people to the sacrifice of countless thousands of field-gray warriors in its great offensive in the west.

Fascinated by the lure of conquest and profitable peace before winter, the German people have gone forth to death on new fields of frightful slaughter, but when it at last realizes that these materialistic dreams can never come true, and that, on the contrary, poverty, impotence and ultimate utter economic and military exhaustion are in store for it, there is going to be a great crisis in Germany.

This moment of dreadful awakening will come sooner than most people think, for the general economic situation in Germany is already today more desperate than it ever was before and forms an absolutely unnatural contrast to the positions the Kaiser's armies hold on the war map of Europe.

America is destined to deal Prussian militarism and materialism a knockout blow on the battlefields of heroic devastated France; and remember the former Krupp director's prophetic words: "Germany will not stand much punishment; once she is down she will give in quickly;" and the Kaisers empire will topple like a house of cards.

Not Fighting to Make the World a Utopia.

[Knoxville (Tenn.) Journal and Tribune.]

In his famous Fourth of July speech President Wilson said, among other things: "The past and the present are in deadly grapple, and the peoples of the world are being done to death between them. There can be but one issue. The settlement must be final. There can be no compromise; no halfway; no halfway decision is conceivable."

Rhetorically, that is excellent; practically, it is utopian. The Baltimore MANUFACTURERS RECORD wishes the President, in place of what he did say had said "that barbarism and civilization, atheism and Christianity, are in deadly grapple." The President is a very busy man, dearly in love with rhetorical expressions, a master of rhetoric; but upon reflection, if he has time to reflect he may himself wish he had put the sentences quoted in different and more practical form. But it was said on the Fourth of July, and Independence Day orators in this country have always been given wide latitude in speech.

Coming right down to brass tacks, Americans are fighting purely for the rights of their own individual nation. They are not giving so much thought as to how the people of other nations are to be governed as they are to their own Government. They make no surrender of the American thought, laid down broadly at the beginning, that "governments instituted among men derive their just powers from the consent of the governed," but Americans are going to leave other nations to settle this for themselves and among themselves. If the United States is going to make wards of other nations, treat them as wards, such guardianship would likely involve the country in wars for years to come. Some degree of selfishness on the part of a nation is an absolute requirement, just as some degree of selfishness is necessary in a family.

It is believed that the Baltimore MANUFACTURERS RECORD comes very near to giving accurate expression to American thought respecting the present war in these paragraphs:

"We are afraid that Mr. Wilson ventured too far afield and permitted his dazzling power of expressive English and his idealistic imagination to go beyond the safety line, and to lead him out into the twilight zone of uncertainty and danger.

"What this country, in our opinion, is called upon to

do is not to lay down theories as to the government of other countries nor to state the terms upon which all the nations of the earth shall adjust their affairs. We do not understand that this is the thing for which we are fighting. What we are fighting for is to save ourselves from destruction by an enemy, the barbarism of Germany, and to destroy that particular barbarism so that it may never again drench the world in blood. But we are not called upon at the present time to set up a Utopia beyond the power of mankind so long as the world is composed of divergent influences, and until humanity has reached the point where the lamb and lion lie down together in peace. Beautiful in theory, but evanescent in this world of realities, is Mr. Wilson's plan for settling all the problems of the earth on the basis of 'the free acceptance by the people immediately concerned.'"

When the President said in his Fourth of July speech that there can be no compromise between freedom and autocracy, he voiced the sentiment of the nation of which he is the executive head, but did he when he said: "The settlement of every question, whether of territory, of sovereignty, of economic arrangement, or of political relationship, upon the basis of the free acceptance of that settlement by the people immediately concerned, and not upon the basis of the material interest or advantage of any other nation or people which may desire a different settlement for the sake of its own exterior influence or mastery."

The conclusion reached, that the President "ventured too far afield and permitted his dazzling power of expressive English and his idealistic imagination to go beyond the safety line and lead him out into the twilight zone of uncertainty and danger" is probably a correct conclusion. But some latitude must be allowed to the Fourth of July orator.

Motor Trucks for Short Hauls Helpful in Winning the War.

Ardmore, Pa., July 9.

Editor Manufacturers Record:

We are very glad to give you in detail a few words along the lines of our recent advertisement, "A Vital War Measure."

Every business man is firmly convinced that the best way to win this war with Germany is to so harness our resources in man-power and industrial organization as to keep up production to the highest possible point in spite of the millions of men required for overseas duties and the millions required at home to produce their actual fighting necessities.

So much of our resources as are not directly affected by war needs must be speeded up in order, if possible, to increase returns to the point where the country can meet these demands out of increased production.

The Autocar Company feels very strongly that the possibilities offered by motor trucks have only just begun to be realized. In long distance hauling, in short hauls and for all express work within city limits, and even within plant limits, the motor truck offers unlimited possibilities.

Steel is one of the very great fundamentals upon which the waging of this war depends. To build 50 steel freight cars and 1250 locomotives, the proportionate number required to move that number of cars, takes approximately 1,437,000 tons of steel. This is based on 25 tons per car and 150 tons for each locomotive and tender. If you take the average load of a freight car as 40 tons and the daily mileage as 20 miles, which are given out as official railroad figures, you find that each freight car has a daily ton-mileage of 800.

A two-ton motor truck with a 100-mile-per-day average has a ton-mileage of, therefore, 200. Four of these two-ton trucks will, therefore, do the work of one freight car, but the four two-ton trucks only require six tons of steel in the manufacture.

Multiply these instances into the thousands, and you readily see how the saving of steel quickly amounts to millions of tons.

Motor trucks are not designed to take the long-distance hauling of bulky freight, but they are designed to relieve the railroads of their unprofitable short hauls, and with every extension of motor-truck service the saving in steel is extended.

There is far greater saving also because the motor truck carries its shipment over the highways directly from shipper to consignee, avoiding all the enormous expense of railroad terminals and the congested delays

inherent in the gathering together of these enormous freight shipments into so small a compass as any freight terminal must be.

THE AUTOCAR COMPANY.

Mississippi Earnestly Committed to War Work.

Jackson, Miss., July 12.—[Special.]—Mississippi has just had one of the most inspiring war conferences since the struggle began. It was held at Gulfport, and was a joint meeting of the State Council for Defense, the Mississippi division of the Sociological Congress, the county superintendents of education and county demonstration agents, both farm and home economics.

The State Council for Defense decided to raise \$22,000 by popular subscription and to increase its executive staff. The recent session of the Legislature appropriated only \$5000 for the Council, and its work has been greatly handicapped through lack of funds.

In addition to the \$25,000, \$2500 will be raised for the woman's division of the Council, which has been one of the most active war agencies in the State. One hundred leading citizens will be asked to give \$25 each to this fund, and a good part of it was raised while the Council was in session.

Practically every county in the State has its own Council, and reports at the general meeting showed that these had contributed their best efforts toward all the war drives that had been conducted since their organization.

The State Council will continue to devote its attention to increasing food crops. This work has already been so successful that the State's hog crop will be 100 per cent. larger this year than last, when the biggest yield of pork, by thousands of pounds, was shipped to market, while the corn crop, the hay, bean, peanut and vegetable crops and the cattle yield will be greater this year than ever before in the State's history.

The Sociological Congress devoted its time to a discussion of public health and the handling of mental defectives. The Rev. Dr. Sneed Hoffman, chief actuary for one of the largest life insurance companies in the United States, spoke on malaria. He said there were 115,000 cases of the disease in Mississippi last year and 15,000 deaths. He explained how easily the disease could be eradicated through banishing the anopheles mosquito, and said the presence of this pest cost the State millions annually through the time lost from work by sufferers.

Malaria eradication work is already under way in Bolivar and Sunflower counties, where thousands of dollars are being spent to rid this territory permanently of the disease by the most modern scientific methods. The coast counties have also had on an intensive fight against the anopheles mosquito, and all the larger towns in the State have waged relentless war on the disease this year, with the assistance of the State Board of Health.

Dr. Walley S. Leathers, executive officer of the State Board of Health, told of the development of the work of his department. Eight years ago the Legislature appropriated \$5000 for this department; this year it appropriated \$50,000. The department maintains a large laboratory here for the manufacture of free sera and antitoxins and the examination of specimens.

Eighty of the eighty-two county superintendents in the State met at the conference of these officials. Their meeting was made possible by the generosity of J. T. Thomas, president of the Granada chain of banks. It was a war conference strictly. All superintendents present agreed to lend their full efforts to furthering increased food production, to teaching thrift through the purchase of Government securities and to co-operate to the fullest extent with the county farm demonstration and home economics agents.

The demonstration agents told of the way their work was taking hold in all parts of the State, of the progress made in the use of labor-saving farm machinery, of the tremendously increased food crops, and especially of the work the State is now doing in raising hogs, and of the labor situation in the rural districts, which they described as critical.

A movement is on foot to have volunteers from the larger towns and cities help the farmers harvest their crops this fall. Experts believe this will be necessary, and a number of city officials have expressed themselves as willing to institute a general holiday so that all able-bodied men may lend a hand on the farms.

The meetings were all full of patriotic enthusiasm, and demonstrated more clearly than ever the unanimity of opinion in Mississippi for seeing the war through, no matter what the cost in hard work or personal sacrifice.

July 18, 1918.]

"The Only Terms of Peace We Should Ever Consider"

[The editorial under the above heading in our issue of June 20 continues to call forth the most vigorous commendation from all parts of the country. We are publishing these letters merely because they indicate the awakening sense of the country that any peace except based on an overwhelming military victory and the unconditional surrender of Germany would be a premium upon crime. Peace without victory would mean the death of all the true manhood and womanhood of the world by the degradation of all to spineless backbones and moral weakness. May Heaven save this nation and the Allies from any sentimentalism which would permit Germany to go unpunished and its leaders unhung or unshot!]

In publishing letters which come to the Manufacturers Record on these questions we would gladly eliminate all personal mention if it could be done without weakening the meaning of the writers, for every word of personal commendation only deepens the sense of personal responsibility.—Editor Manufacturers Record.]

"Delenda Est Germania."

COURTENAY DE KALB, Stanford University, San Francisco, Cal.

What better number could there be on my Fourth of July program than to write to you, the glorious champion of the staunch old-fashioned Americanism! You have in you the old flame that made the heroisms of the men of '76. We thank God for you and such as you, to whom free America means something too great to be sacrificed in comfortable compromises.

I am glad that you and I stand on the same platform as regards a negotiated peace. I have felt like writing an article on the significance of a peace through *force majeure*, so that our people might gird themselves for the struggle with a full comprehension of the sacrifice that it will entail—our present sacrifice in the interest of the future peaceful development of the race in its effort to attain the creative intelligence which is the only conceivable end of true civilization. Either we must reach that or we will fail to realize the possibilities of the race. If that fail, man will have been a mistake; the opportunity of self-apotheosis given to him by God, through his privilege of free will, will have been thrown away.

I am indulging for a moment in speaking to you, not of the transitory things of which bankers and manufacturers and politicians prate, but of those ultimate things that give meaning to man's existence and struggle here. The people may not grasp the significance of all this, but you and I and a large class of men who understand that our daily round of life must be interpreted in terms of its cosmic relations can draw the inspiration to fight for the supreme principles that admit of no compromise by considering our present acts in the light of what they must mean in human destiny.

There come moments in the march of mankind when it becomes evident that the conflict of races and of separate cultures must be settled, because the world can no longer respect the two and advance. We find many such crises in the affairs of men. One was when the Mesopotamian civilization recognized in the Hittite an enemy that must be eradicated; another, better known to our world, was the decision of Rome that the hour had struck when the problem of Semite vs. Anti-Semite must be determined forever. Then it was that Cato gave to Rome the slogan, "Delenda est Carthago." How well she carried out that purpose is seen in the utter annihilation of the Carthaginian cities from Northern Africa; their houses and temples, their public buildings and docks were all destroyed, so that there should remain not one familiar pile around which to reawaken memories of the past. The people were scattered, colonies were sent in to occupy the land, new towns and harbors were constructed. The Punic civilization that had menaced the Roman from its beginning was wiped out, and the Roman laws and customs and moral viewpoint, on which the splendid scion of a Christian civilization later was grafted, had the Mediterranean world free to grow in without the antagonisms of the worshippers of Baal and Moloch and of the sacrifices to Ashtoreth.

For over 2300 years the Teutons have been the barbarian antagonists of the peoples that stood for the higher and purer things. Whenever the world of higher culture has begun to flourish, these savages of the North have descended upon it to loot and luxuriate in it. Over and again has this occurred through the centuries. Here, at the end of the second millennium, after

the pure doctrines of morality preached by Christ had, as we thought, begun to bear their most beautiful fruit, these same Teutons seize us by the throat to destroy us, and we find that in the face of 2000 years of Christian teaching they have grown even more barbarous and cruel than the repulsive picture of themselves painted in their own cherished national epic, the *Nibelungen Lied*. After all this, is it not justifiable to say of them, as Rome said of the Carthaginians, that they cannot be civilized, that they stand opposed to culture, opposed to the growth in the world of the doctrine of love, and that it is time for us to say, "Delenda est Germania"?

Let us recall what Scipio did to Carthage, and then we will know what it means to fight without compromise. No matter how long it takes, until that is done the peace of the world is not safe and the continuance of human progress is not assured. Without that the old warfare of trade will continue and the German will invade all countries by what they call "peaceful penetration." We know the process, from having observed it before the war, and we have also seen that it is nothing more than a form of warfare that leads inevitably to the settlement of the adverse trade balance by force of arms. That is what Germany would try to have us accept as a means for her escape from her present difficulty, and, in consequence, her friends are everywhere preaching the doctrine of generosity toward our enemies and telling us that we cannot actually conquer her, but must find a convenient peace through negotiation. That it what lies back of the shouting against "secret diplomacy," which, on examination, proves to mean that the proffers of such a peace as that has been rejected without even bringing them to the attention of parliaments and congresses. It is through a calm, clear understanding of the great purpose for which we are fighting that we can withstand the attempts to rush us into the kind of peace that would mean another chance for Germany to prepare once more to harass civilization in the future, as in the past.

Germany as Viewed by a Minister Who Since 1914 Has Seen and Spoken the Truth.

Rev. R. H. Pitt, D.D., editor of the Religious Herald, who since August, 1914, has had the vision to see the meaning of this war and has had the courage to tell the truth about it while the vast majority of the religious papers of the country were shutting their eyes to the truth and in doing so shut their eyes to the greatest immorality in the world's history, and were neutral, forgetting that where a moral issue is involved neutrality becomes immorality, has in the last issue of the Religious Herald an editorial replying to a critic of the Herald's truthful view of the situation. In closing his editorial, Dr. Pitt said:

"We do not care to write about it. We try to write what appears in these editorial columns under suitable restraint, and with a measure of sobriety. Yet in the name of God, of humanity, of righteousness, of all that sweetens and sanctifies human life, of all that lifts man above what is barbarous and bestial, how can we write with restraint of these unspeakable demons. Poisoners on land, assassins at sea, assaulting peaceful and defenseless villages and towns from the air, breaking their own solemn and sealed engagements with cynical sneers, ravaging and mutilating women, crucifying children, beating and shooting old and helpless men and mixing with all this diabolism their impious and blasphemous declarations of their peculiar partnership with God!

"We might well understand that if such devilish business as they have set on foot should succeed and their

temper and spirit should dominate the world, life would not be worth living.

"And added to all their crimes is their ridiculous claim of superiority over the rest of mankind, and the impudent proposal that when their military victories are complete, with France bled white, and England crushed, with Russia eliminated and Italy collapsing under the awful strain, they will turn to our own land and compel us to pay the cost of the ruin the Germans themselves have wrought. They may not know, but we know that no dollar of American money could ever find its way into an indemnity fund as long as there was an American soldier in uniform or an American sailor on the sea.

"Our brethren are naturally anxious, and we praise them for it, that we shall not in times like these, that heat our blood to the boiling point, lose sight of the noblest Christian ideals, or get out of touch with the temper and spirit of our Lord. Let them mix with their anxiety some measure of caution lest in interpreting His spirit to the world they should wrong Him, lest they should make of Him a pitiable figure, no longer sympathetic with the greatest interests of humanity, no longer capable of the indignation which scourged the hypocrites from the temple, no longer that colossal Person who hath graven on His vesture and His thigh King of Kings and Lord of Lords, but as weak, fond, foolish, lachrymose and helpless. Let it forever be made known that mixed with a love that will not let us go, with a mercy that has in it the wideness of the sea, with a patience and forbearance that endure to the end—mixed with these, in goodly proportions, too, is a flaming anger against wrong, a glowing indignation against cruelties and barbarisms and a scathing, withering, consuming anger against the despoilers of men and women. It was from His lips that grace and truth fell, when in His own matchless way He said to the bowed and burdened: 'Come unto Me all ye that labor and are heavy laden, and I will give you rest.' Blessed, thrice blessed, be the lips that framed this invitation and the great compassionate heart that formed it. But it was from those same lips that fell the awful words: 'Ye serpents, ye generation of vipers; How can ye escape the damnation of hell?'"

Dr. Hillis on the Kaiser as a Mohammedan.

[Baltimore Southern Methodist.]

There has been considerable newspaper discussion respecting the Kaiser's religious beliefs, as his telegrams and official papers would naturally lead his people to believe that he is deeply religious. "Gott Mit Uns" is one of his favorite expressions. The interesting question is, to what church does the Kaiser owe his allegiance and what sort of God does he worship?

The Lutheran church has repudiated him root and branch. But this was scarcely necessary, as that excellent church has not the odium of ever having had his name upon its roll. If the sources of our information are correct, the Kaiser is the nominal head of a reformed establishment in Germany. But this is what we find on the surface. It was left to Dr. Dwight N. Hillis, pastor of the Plymouth pulpit, to discover that the Kaiser in reality is a Mohammedan. Dr. Hillis, in a lecture delivered in the First Baptist Church of this city a few weeks ago, declared that the Kaiser embraced this faith in 1908 when he toured Palestine and visited Constantinople. The Brooklyn divine said that he had seen a photograph of the Kaiser in St. Sophia in Constantinople when he had renounced Christianity and had accepted the tenets of Islam. That the Kaiser is a Mohammedan and a worshipper of the Allah of the prophet is not without some color.

First.—The Kaiser does not worship the God of Moses, for He is "merciful and gracious, long-suffering and abundant in goodness and truth."

Second.—He does not worship the God of the prophets, who, according to Isaiah, is a tender, merciful, righteous God.

Third.—He does not worship the God of Jesus Christ, for he never mentions the name of the second person of the Trinity.

First.—He does worship a being who is pictured on aluminum coins that are given to the soldiers, as a large white-bearded god in a flowing robe with a sword buckled around his waist. Beneath the image are these words: "Strike your enemy dead. The day of judgment will ask no questions." Is not this the Mohammedan god Germanized?

Second.—The treachery and unspeakable cruelty of the Germans to their enemies are in discord with the teachings of the Bible but are in complete accord with the teachings of Mohammed.

Third.—The Kaiser is trying to take the advantage of the war to force polygamy upon his people. Dr. Hillis produced a copy of one of many of the official documents which have been found upon the bodies of dead German soldiers, telling them that there were 3,000,000 empty cradles in Germany that ought to be

filled and advising them that they were permitted to go to their home communities on furloughs to practice for a season wholesale immoralities, with the promise that if they were married or engaged the State would protect them in any trouble that might arise between them and their wives and finances. It further stated that the military authorities hoped that the young widows and maidens would cheerfully bear this burden for the sake of the fatherland. On the plea of military necessity the Kaiser is treating the Ten Commandments and all moral laws as if they were a "mere scrap of paper." This is the spirit of Mohammedanism.

Whether the Kaiser is or is not a Mohammedan, he is practicing the teachings of Mohammed in a fashion that would delight the most orthodox of the faithful. This means that German conquest therefore would likely mean the overthrow not only of civilization, but of Christianity itself. As a great Englishman recently remarked, it were better that we were all perished than be under German domination.

No Compromise With Hell.

[The Hustler, Madisonville, Ky.]

Every day the war is prolonged, every battle fought and every crime committed by the Emperor of Germany and his devilish minions only adds to the fury of the Allies and makes them that much the more determined in the end that there shall be a terrible reckoning in which the most unscrupulous set of scoundrels that the world ever produced or who have escaped being shot or hung shall suffer the penalty of violated law.

There have never been a set of outlaws from the beginning of time until the present who have been guilty of more crimes than are charged up against this set of outlaws, thieves and cut-throats. An enumeration of these outrages is such that it covers every crime known to either savage or civilized life. The Germans have been guilty of

- Sinking neutral vessels.
- Sinking Red Cross vessels.
- Submarining Hospital ships.
- Drowning women and children.
- Burning hospitals.
- Raping women.
- Maiming children.
- Crucifying enemies.
- Starving prisoners.
- Murdering old men.
- Poisoning wells.
- Polluting streams.
- Cannonading churches.
- Desecrating holy places.
- Violating cemeteries.
- Blaspheming Deity.
- Burning cities.
- Pillaging homes.
- Robbing the dead.
- Torturing the helpless.
- Betraying friendship.
- Gassing trenches.
- Violating treaties.
- Propagating treason.
- Looting treasury.
- Destroying works of art.

Arson, theft, treason, murder, rape, torture, blasphemy, pillage, robbery, sabotage, cheating, swindling—every crime in the calendar from that which is so small as hardly to be regarded as a crime to the most heinous, the most savage, the most brutal, the most revolting, the most hellish and the most damnable that could be thought of by man or instigated by devils incarnate have been perpetrated by the sanction of that beast—the Kaiser—who occupies the throne of the German Empire.

The people of the countries that have been conquered by these fiends in human shape—but with souls so steeped in villainy that they have lost the semblance of man—are suffering with such miseries and agonies that even hell itself has been robbed of its terrors when compared with the violence of the acts of the beast of Berlin and his deluded followers.

And yet, maybe there are those in the United States—men and women who were born and bred in this country and who have been protected by the flag of the Union—who are crying out for peace and are willing to sacrifice everything that should be dear to an American heart if only the war could be stopped where it now is.

America is not ready for peace. The Allies are not ready for peace, and even Germany is not ready for

peace. There is no peace, nor can there be peace that is worth the paper it is written on, until the total annihilation of the last vestige of Prussianism is blotted from the face of the earth.

It may be that the war shall end this year, perhaps next year, and yet it may last many years or more. Not even those who read and claim to understand prophecy as written in the Bible are able to throw any intelligible light on the subject. So far as that is concerned, none of us know.

It may be that before the last gun is fired and peace proclaimed that we shall have to send 5,000,000 men to the front, perhaps half a million of these may be killed or wounded, the cost in treasure may be billions upon billions, want may stare us in the face and cause untold suffering among our people, yet, with all this price paid, a victory over Germany and German kultur will be worth more than all of this.

While we do not believe that the war shall last a great while longer, yet we know not when that great peace shall come. We should nerve ourselves for the conflict, and, whether it should be long or short, should meet the responsibilities that fall to each one of us like true American citizens.

Germany must be brought to her knees; she must be taught that she cannot ride rough shod over the nations of earth and make its people her unwilling vassals. It is only by a complete overthrow of these enemies of all that is good, pure and holy that this world is to be made a fit and safe habitation for mankind in years and ages to come.

There must be no peace declared with Germany as long as that people are able to muster a soldier or fire a gun. It must come only when the Allied forces have marched through Belgium and on to Berlin and in that city, when the foe is on his knees and begs for mercy at the hands of an outraged world.

In that peace neither must there be any questions asked of that people as to their wish or desire in anything. The terms should be only such as may be offered by the victorious soldiers of the Allied powers of the world. If nothing but total extermination and everlasting annihilation will bring these scoundrels to their senses, then let it be so, and the sooner the better for the balance of the people of earth.

Just so long as the Saviour of Mankind refuses to compromise with Satan, and thus make sin a blessing instead of a curse, so long as God Himself reigns in Heaven instead of the infernal regions, just so long as right is right and wrong is wrong, just that long should we refuse even for one minute to think of compromising with Germany or her allies.

A Minister Who Clearly Sees the Truth as to Germany and Boldly States It.

REV. JOHN J. WICKER, Pastor Leigh Street Baptist Church, Richmond, Va.

Through all the years I have been grateful to God for you and your virile pen and the high moral tone of the MANUFACTURERS RECORD. I am especially grateful for your constant contribution to the cause of justice and righteousness in this great world struggle.

Our country has had a dose of the so-called new theology, with its milk-and-water mixture and sentimentalism styled love, totally devoid of the stern sense of God's holiness and justice. This diet has told upon our public conscience. A crime is committed in the morning. In the afternoon the mob cries "lynch him." The next day women are passing flowers through the bars to the criminal, and in a month a long list of men have signed a petition for a pardon. Already I have heard from high theological authority a plea for forgiveness for Germany. God forbid that the nations of the earth should forgive Germany until she repents in sackcloth and in ashes and goes to the extreme of her ability to make just and righteous restitution for all of her unspeakable diabolical deeds. Forgiveness on any other platform is a compromise unworthy of civilization.

I have two boys in the aviation and a son-in-law a major on the western front in France. All that I have and every dollar that I can command is on the altar of a democracy founded on justice and the rights of nations, with individual freedom and protection for every man and every home.

I do not believe this war should end until Germany is made, as far as it is possible for her, to make right every wrong that she has unlawfully committed against every nation and every home she has invaded.

May God bless you and carry forward the ideals you preach to every part of this world.

Things for Americans to Think About.

[The Tampa Times.]

There is no more virile, patriotic American in all the wide boundaries of the United States than Richard R. Edmonds, editor of the MANUFACTURERS RECORD of Baltimore. His writings, copied far and wide, have done more to arouse American sentiment against the unspeakable atrocities of the Hun and his savage allies than any other single influence. Read the following editorial, copied from the cover page of the MANUFACTURERS RECORD, and then, if there is any lingering sentiment of regard or sympathy in your heart for these fiends in human form, crush it out forever. It is born of the devil and not of humanity.

"If you hate sin and evil, then hate Prussianism.

"If you love the devil and all his doings, and only then, love the enemy of God and mankind, the Germany which has sold its soul to the devil.

"Has any man dared to tell you to sink your manhood or womanhood and love of the unspeakable Turk—or, as a noted divine once said from his pulpit, moved thereto by the fearful crimes which were then being committed, the 'damned Turk'?

"As you think of the awful atrocities committed during the last four years by the Turks with German aid in torturing and murdering 1,000,000 Armenian Christians and in sending into the horrors of Turkish harems the fairest of the long-suffering Armenian girls, do you love these brutes?

"Would you love them if your own wife or daughter had thus been treated?

"Never let yourself think of Germany or of Germans merely as a misguided nation, forced into war.

"Never think of Germans as of the soldiers of other wars, to be forgiven when the struggle is over.

"Think of Germans as super-fiends who for generations have planned world conquest for world looting.

"Think of Germans as people who have gloated over crimes of frightfulness.

"Think of Germans as people who made holidays to celebrate the murdering of women and children on the Lusitania.

"Think of Germans who have had one supreme aim in life, viz.: to enrich their country and themselves by murdering millions of people in order to loot the world.

"Think deep down in your soul of this nation of liars, of looters, of rapists, of murderers, of fiends incarnate, and then make your solemn pledge on this day sacred to human liberty that, with God and man as your witness, if not fighting on the battlefields of France, you will, to the last ounce of your strength, work and fight at home until the accursed power of Germany and her allies has been crushed, their ringleaders shot or hanged and the heaviest financial penalties imposed upon these nations, that the world may never again be deluged in blood by nations so steeped in barbarism and sin. Anything short of that would be a premium upon murder, a premium upon rape, a premium upon highway robbery and a reflection upon those who have died to save civilization from Germany's barbarism."

\$4,500,000 FOR MUNITIONS FACTORIES.

Three \$1,500,000 Plants for War Department to Be Built at St. Louis.

Three big munitions factories to supply the War Department will be built at St. Louis, and the total investment for these plants will be \$4,500,000. Each plant will require an investment of \$1,500,000, one to be a new establishment and the others to be additions to factories now producing large quantities of munitions for the Government.

The Scullin Steel Co. will build the new plant, and will require 20,000 men for its operation. Its buildings will be of reinforced concrete fireproof construction. The McDonald Engineering Co. and the Moon Motor Car Co., S. McDonald, vice-president, will build the two additions. Reinforced concrete fireproof construction has been adopted also for the Moon and McDonald works.

The Moon corporation has awarded a contract for two of its buildings to the Greive Construction Co., St. Louis. These two buildings are as follows: Four-story 126x40-foot factory of reinforced concrete, including floors and foundations, costing \$48,700; four-story 72x50-foot heat-treating plant of reinforced concrete, brick and steel, on concrete foundations, costing \$64,000.

No further particulars are available now regarding these extensive facilities to aid the Government in winning the war.



War Eagle Series

There has been such a demand from all parts of the country for duplicates of the editorial cover pieces from the pen of the Editor of the MANUFACTURERS RECORD, which have appeared on our front cover from week to week for several months past, that we have made up a series of one dozen of them under the above title.

They have been reproduced in full size upon sheets not quite so large as the cover page of the MANUFACTURERS RECORD, with a striking picture of America's War Eagle at the top.

The work has been done in the best style of the printer's art and the sheets are prepared in convenient size for mounting or hanging. They will be mailed in a large portfolio envelope, in which they can be permanently kept if desired.

The price of the complete series is \$1.25 including postage; or they will be mailed free to each new subscriber to the MANUFACTURERS RECORD.

It may be that this series will be added to from time to time, but there is no certainty of it, nor is there any assurance that the limited edition we have printed will be increased. Printing facilities and time are taxed to the utmost to keep up with extraordinary work now, when every atom of energy possessed by publishers, as well as people in every line, must be used to help in winning the war.

As a permanent record of some of the thoughts which have commanded very wide notice throughout the nation, and as an appropriate gift to friends, we believe that everyone interested in the matter will be well repaid for having this notable series of essays or editorials in their libraries or offices.

MANUFACTURERS RECORD PUBLISHING CO.
BALTIMORE, MD.

The Mission of the United States Employment Service

By JAMES A. METCALF, Assistant Superintendent of Sixth District, Meridian, Miss.

Accustomed to the indiscriminate, competitive, knock-down-and-drag-out system of securing their labor supply, many heads of large industrial concerns have viewed with suspicion, if not with alarm, the organization of the United States Employment Service, Department of Labor, which is now in effective operation in every State of the Union and in Porto Rico.

It has been assumed that the service was designed solely for the purpose of providing the required labor supply of the Government for its federally-operated plants of various kinds, and for the closely allied essential war industries, and that this design would be ruthlessly accomplished without regard to the interests or needs of industry in general; in other words, that it was intended to send "Government labor agents" into all sections, hither and yon, commissioned to obtain laborers almost at any cost, and by offering wages with which private industry would be absolutely unable to compete.

This assumption, generated doubtless by the distrust with which industry is apt to view any concerted movement affecting labor, was just about as far from the truth as it could be.

The United States Government realizes, and has frequently emphasized the principle that, while industries directly related to military and naval operations must patriotically be given the preference, this must be accomplished with the least possible impairment of general business. No greater calamity could be imagined than that involved in a general or partial breakdown of industry or a business stagnation that would produce panicky conditions.

The mission of the United States Employment Service, in brief, is this: To avoid congestion of labor resulting from destructive competition in the labor market; to bring about as nearly as possible an equal distribution of labor among industrial centers and agricultural sections; to assure an adequate supply of labor for essential war industries with the least possible disturbance of local industrial and agricultural conditions, and to combat the menace of idle labor at a time when the nation must bring into operation its maximum manpower in both industry and agriculture.

This is assuredly a program to which every loyal citizen can give his hearty endorsement and co-operation. If the functions of the United States Employment Service may be speedily perfected and assured free operation, it will be in a position to perform a service of inestimable value to the nation.

It is assumed that managers of great industrial enterprises are big enough and broad enough and patriotic enough to recognize the national need and to grant that everything pertaining to a successful conduct of the war is of paramount importance; that every individual and collective activity must be subordinated to this one great, all-absorbing purpose.

But until this service came into existence we were rapidly drifting into a chaotic industrial condition. Labor was in greater demand than ever before in this country. Commissioned by this or that board or branch of the Government service to complete a certain contract in a given length of time, manufacturers were reaching out in every direction and to great distances for laborers.

The peripatetic labor agent at once became an unmitigated nuisance and a positive evil. Often assuming Federal authority, as "representing the United States Government," these agents pursued arrogant and ruthless methods. A manufacturing concern, pursuing the even tenor of its way, was suddenly confronted by the danger of disorganization through the depletion of its labor supply.

Operating with all sorts of insidious methods, spurred by the per capita compensation allowed them, enlisting often the aid of doubtful individuals of both sexes, these labor agents made serious incursions upon the working forces of innumerable plants. The source of their "Federal authority" was perhaps the word or letter of some minor military officer located as inspector at a munitions plant. They made bold in many instances to carry cards inscribed "United States Labor Agent."

The lures and promises held out by them were gen-

erally of the magniloquent variety. In instances without number, many having come under the writer's attention, these inducements were unjustified, both as to wages and conditions of employment, and the flamboyant promises made were not fulfilled when laborers arrived at designated plants.

The results have been mischievous in the extreme. Dissatisfaction and unrest have found place in the minds of men who hitherto were industrious, satisfied employees. There was also the contingent evil of continual migrations of laborers—thousands going in one direction and other thousands headed in perhaps an opposite direction. During their traveling they were divorced from the ranks of productive labor, and the resultant aggregate loss to general industry has been incalculable.

Viewing these conditions, it was realized that the interposition of Federal regulation of labor was absolutely necessary if the maximum man-power of the nation were to be employed regularly and continuously upon our great war task, and if congestion of labor in certain sections to the detriment of other localities were to be avoided, to say nothing of the solution of the great problem of farm labor.

The United States Employment Service has undoubtedly tackled a very great problem—the greatest of its character in world history. Its possibilities cannot be judged by results already achieved, though these have been of far-reaching importance. A recent bulletin of the service states that the number of employers using the service increased by 150,000 during April, this being based upon incomplete returns from branches in the several States. In many of these States the work is less than a month old. During that same month 180,000 persons applied at the various branches for work and 150,000 of them were successfully placed in employment of various kinds. This in itself is a record worth while.

The labor agent evil still exists to a certain extent, but its days are undoubtedly numbered. As the result of a recent conference in Washington, an executive order of the War Labor Board will issue on August 1, or thereabouts, placing in the hands of the United States Employment Service the exclusive recruiting of labor for Government operated or controlled industries throughout the entire country. This move will undoubtedly simplify the situation. It will serve as notice to all civil authorities that the Government does not thereafter recognize nor give any measure of authority to these independent labor agents, whose activities, exerted in behalf of private concerns, may then be controlled by the municipal and State police powers. In other words, so far as the essential war industries are concerned, the duly qualified officials and agents of the United States Employment Service, operating through the regularly established branches of the Service, need only be recognized by the civil authorities.

One point should be emphasized in order to remove a possible misapprehension. It is not the intent of this Federal employment service to eliminate the competitive factor from the labor market, but rather to keep competition within due bounds in order to avoid the crippling of the industrial and agricultural interests of any particular section. An even distribution of labor, so far as this may be possible, is essential to the maintenance of an industrial parity or level throughout the country.

The position of the Government in regard to the general labor situation has been stated with positive clarity by the War Labor Board, namely, that no Federal Agency shall be utilized to interfere with the right of either capital or labor to organize for competitive purposes. Naturally the United States Employment Service will be governed by that principle in every respect.

The main purpose of this article is to remove, if possible, any misapprehension, which may exist in the minds of either employers or employees as to the mission of the service, and to enlist the co-operation of both elements for the good of the service and the accomplishment of its important mission. Its possibilities are unlimited. It may not only assist in solving the immediate war-time problems of industry, but ought also to pro-

mote the industrial integrity of the nation and the general prosperity of the laborers.

Particular stress ought to be laid upon the menace of idle labor. Every State and every community ought to enforce stringently the vagrancy laws, and where such laws are insufficient to meet the needs of the situation, they should be amplified and strengthened. The most effective remedy consists of an anti-loafing law. Under many vagrancy laws the improvident and unpatriotic may evade successful prosecution by working part time. When a man is picked up as a vagrant, if he can show money enough to meet his immediate needs he usually goes scot free. The power of public opinion must be brought to bear so that every able-bodied man will be literally compelled to work six days per week. "Go to work, go to war or go to jail" is the slogan that is being adopted in many localities.

Concerning the organization and operation of the service, only this much need be said: It is literally an employment agency on a very large scale. It is an arm or branch of the Department of Labor. At its head is the capable director-general is the Hon. John B. Densmore, a man of wide experience and peculiarly fitted for this position.

The country is divided into 13 districts, each under the direction of a superintendent. For instance, the Sixth district is composed of Georgia, Alabama, Louisiana, Mississippi and Florida, with headquarters at Meridian, Miss. Mr. Cliff Williams of Meridian, a man of large affairs and widely known throughout the South is its district superintendent.

Each State is in charge of a State director, who has under his supervision various local branches, which are established as the needs of the service indicate. Each local branch has an examiner in charge, who forms the actual, vital contact between the service and the interests it seeks to serve.

Employers are urged to list with the nearest local branch their labor needs, and the unemployed are requested to apply for work in a similar manner. If the local branch is unable to supply the listed labor needs of his office from the enrolled applicants, he reports on regular forms to the State director. The latter, in turn, endeavors to equalize or fill labor demands of localities from the labor supply within his own State. Failing in this, he, in turn, reports to the district superintendent.

Then begins the comparison and interchange between States of the district, which, in turn, may prove unavailing. In that event, through reports to headquarters at Washington, there occurs a final attempt at equalization and distribution. The service has no connection whatever with the Civil Service. There are no examinations. The usual rule is to require references from prospective employees, though in emergency cases this sometimes becomes impossible. The employer is required to supply data as to wages he will pay and the living conditions, whether he will pay transportation, etc. The laborer thus acquires correct, reliable information, which he rarely receives when dealing with an unknown labor agent, for the United States Employment Service officials take pains to investigate all representations of this sort, and will not tolerate misrepresentations.

There has been created, as will be seen from the foregoing, an admirable framework of organization, which is already demonstrating its efficiency in actual operation, and will presumably increase in value as its purposes become better understood and its services are more generally availed of. It operates, in brief, as a great national clearing-house of labor.

Manufacturers and others lacking information as to location of branch offices may have this supplied by application to district headquarters.

Maryland to Have Aviation Field.

More than \$1,000,000 will be expended by the War Department for a big aviation field on the Government reservation at Aberdeen, Md., adjoining the ordnance proving grounds. Preliminary improvements on the land are already in progress, and the contract has been awarded for the construction of hangars, barracks, machine repair shops, etc., the Maryland Dredging & Contracting Co. of Baltimore being the general contractor. About 3000 men are now employed on the work.

On and after August 1 subscription price will be \$5.50 per year in the United States.

July 18, 1918.]

\$50,000,000 BETHLEHEM STEEL ADDITIONS.**Big Plan for Additional Iron Furnaces, Steel Plate Mills and Coke Ovens at Maryland Works.**

An expenditure of \$50,000,000 has been arranged by the Bethlehem Steel Corporation for building additional iron furnaces, steel plate mills, coke ovens and other facilities at its Sparrows Point (Md.) plant. The Government will advance \$20,000,000 of the amount named and \$30,000,000 will be secured from bankers. Detailed specifications for the increased facilities are said to have been determined by the Bethlehem engineers.

The War Finance Corporation of the Government announces these important and extensive additions as follows:

"Upon the request of the Director of Steel Supply of the War Industries Board, the War Finance Corporation, in order to assist in meeting the urgent requirements of the country for steel and certain other war products has agreed to make an advance to the Bethlehem Steel Corporation of approximately \$20,000,000. The proceeds of this advance will be used for the completion of certain contemplated extensions for coke ovens, blast furnaces, plate mills, etc., at the Sparrows Point plant of the Steel Corporation. These extensions will round out and materially increase the production of this plant. It is expected that the work will be completed within a year.

"The War Finance Corporation will receive for this advance serial notes of one to five-year maturities, part of a total authorized issue of \$50,000,000. The remainder of this issue is to be underwritten by a syndicate to be formed by bankers for Bethlehem Steel Corporation. The notes will be ultimately secured by bonds of Bethlehem Steel Corporation of a par value equal to 140 per cent. of the notes. These bonds are in turn to be secured by direct mortgage upon the principal steel properties controlled by the Bethlehem Steel Corporation through its subsidiaries, and also directly, through the pledge of securities, upon other properties controlled by the Bethlehem Steel Corporation."

Working Toward Increased Iron Production in Birmingham District.

Birmingham, Ala., July 15—[Special.]—Furnace companies in the South have orders in hand and others waiting on them through Government agencies that will keep them busy for months to come. With the exception of a little off-grade iron, there is nothing to be heard of in the way of pig-iron to be offered for last half of year delivery. Allocations, heretofore mentioned, will require considerable work during the next three months to fill. While the reports are that 100,000 tons of basic iron for the British and Allied governments are to be supplied from the South during August, September and October, it is understood that more than 80,000 tons will come from this State. The Woodward Iron Co., the Alabama Company and the Sloss-Sheffield Steel & Iron Co. are known to have received some of the business, and in all probabilities the Republic and Tennessee companies, the larger corporations, will supply a little, though of this there is no verification. The production of iron in Alabama will show a little improvement during the last half of this month. Blowing is of the first of the three furnaces of the Sheffield Iron Corporation, of which James Gayley of New York is president, will take place this week, and by the end of the week it is hoped there will be a daily production of upwards of 250 tons a day. Then another furnace which has undergone repairing will be ready for the torch again, and this will add some to the make. However, one of the Sloss-Sheffield Steel & Iron Co.'s furnaces will have to blow out for repairs.

Raw material for iron-making is not now so difficult to obtain. Labor is responding to appeals for steady work and effort toward clean output. The transportation facilities in the district are being given every attention by the administration, and if furnaces would only respond to the efforts of the ironmasters there would be a still better feeling. The July output at blast furnaces in Alabama will show an increase over that of June, it is now estimated.

More iron is being shipped out and melted at home than is being manufactured. As a consequence, there is further reduction of accumulated stocks in yards. No more yards can be expected for some time, for several

of the local consumers have purchased well ahead and will use the furnace yards for storage.

While both coal and coke production in Alabama show improvement, there is just as big a demand as before; in other words, the demand is growing more rapidly than the production. Men from the trenches in Europe, representatives of the Government, officers of the labor organizations, corporation officials and others have been making strong appeals to the ore and coal mine employes for better production as an effort toward the winning of the war, and there is response, for the records of production are beginning to show steady improvement. During the past two weeks representatives of the United States Shipping Board, accompanied by British, French, Belgian and other men from the trenches in Europe have been through the mining and manufacturing sections of Alabama, reciting conditions and telling of the dire need for every man at home to back the men on the battle fields by producing ore, coal, pig-iron, steel, and so on. The meetings being held have been full of patriotism, and the speakers have been accorded every welcome, one or two of them being presented with loving cups.

Truman H. Aldrich, Sr., director of Zone 13, on the essential and non-essential work under the War Industries Board, directing the work for Alabama, Tennessee, Mississippi and parts of Louisiana and Florida, will be in Washington this week for a general conference with officials from other zones and the leaders of administration forces. Statistics have been prepared as to the various industries of this zone and the nature of their operations in line with the winning of the war.

Scrap iron and steel dealers in the South do not have an optimistic word for the market, and say that if there is not some improvement in the near future they might as well go out of business. The collectors of country scrap and those who have considerable scrap to sell at all times are asking for the highest prices in accordance to the Government figures, and as a consequence there is not much for the dealers. As a whole, the scrap iron and steel market in the South is quiet. Some changes are noted in quotations, but this is explained that the new figures are those at which sales are being made, including delivery, while heretofore the figures were what the dealers here were paying.

Quotations for pig-iron and scrap iron and steel in the South are as follows:

PIG IRON.

No. 2, foundry, \$33.50, f. o. b. furnaces. Basic iron, \$32. Next revision by the Government due September 1; differentials in grades of iron same as before Government regulations as to prices went into effect.

OLD MATERIAL.

Old steel axes.....	\$30.00 to \$32.00
Old steel rails.....	26.00 to 28.00
Heavy melting steel.....	26.00 to 26.50
No. 1 R. R. wrought.....	27.00 to 28.00
No. 1 cast.....	27.00 to 28.00
Stove plate.....	23.00 to 24.00
Old car wheels.....	27.00 to 28.00
Tramcar wheels.....	27.00 to 28.00
Machine shop turnings.....	16.00 to 17.00
Cast iron borings.....	17.00 to 18.00

For Manufacturing Shrapnel Balls.

Construction has begun on the buildings for the shrapnel ball manufacturing plant which the John T. Lewis & Brothers Company, a branch of the National Lead Co., will establish at Baltimore. The main building will be of brick, steel and concrete, 300 feet long by 100 feet wide, in which will be installed the principal equipment for the production of shrapnel balls. There will also be several other buildings on the five-acre site on the Baltimore & Ohio Railroad. The product will be taken by the Bartlett Hayward Company, manufacturer of explosive shells and other munitions for the War Department under Government direction.

Interested in Powdered Coal as Fuel.

R. S. TRULOCK, President Trulock Ice Co., El Reno, Oklahoma.

On account of the advance of natural gas to manufacturers from 11 to 20 cents, we are forced to look up another form of fuel. I have heard of the new system of burning coal that is pulverized into a powder and forced under boilers by air pressure. If you have the names of the makers of this kind of machinery, will you kindly give them to me with their addresses, and if you have published an article on this subject recently, advise me of the price of the issue and I will send stamps to cover.

BIG MOTOR REPAIR PLANT.**\$1,500,000 Expenditure for San Antonio.**

Detailed plans and specifications have been completed for the big motor repair plant which the War Department will build at San Antonio, Tex., and it has been decided that the expenditure will amount to \$1,500,000, of which \$1,000,000 will be for the main building with storage-house and \$500,000 for the other plant buildings and all the mechanical equipment.

There will be erected two permanent structures and 40 living barracks for 2000 workmen. The main building will be 500 feet square, of steel frame, with glass sides, concrete floors and roof, this building and the storage-house to occupy six acres of land. The general contract for constructing this plant has been awarded to the American Construction Co. of Houston. The War Department has placed this enterprise in charge of Major Arthur M. Shaw, Construction Quartermaster, Mechanical Repair Unit No. 394, who was in charge of building the \$2,000,000 repair plant recently completed at Atlanta, Ga. These two big establishments will repair automobiles, motorcycles, motor trucks, ambulances, wagons and all other varieties of vehicles used by the army.

For Rehabilitation of Disabled Soldiers.

C. A. PROSSER, Director Federal Board for Vocational Education, Washington.

Congress, by act approved June 27, has delegated to this board exclusively the duty of vocational re-education, rehabilitation and placement of disabled members of the armed forces of the United States. That work is now in course of being arranged and will shortly commence.

In itself it is a subject of vital interest to every family with a man in the service or liable to service, to the friends of those men and the men themselves to know that, notwithstanding wounds or disabilities which under former conditions would mean a place on the human scrap heap, the disabled will be placed back in civil life, in many instances more competent economically than in their pre-war status.

There is much more on this subject. There is the great annual grist of disabled from the industries, for example. This machinery being erected now will undoubtedly be turned to use in vocationally rehabilitating them when the battlefields no longer furnish subjects.

If those made artificially defective are rehabilitated and made effective, why not natural defectives also when we get further along with it?

And if those who have been rendered economically defective by mechanical means or otherwise, then why not readjust the man misplaced in industry? A misplaced man is in effect a crippled man. Why not refit him for something where he will really be efficient?

It is a tremendously big and new proposition. We are just on the threshold of it.

Big Paris Island Contract.

A \$1,666,600 contract has been awarded for additional facilities needed for the men to be trained for the War Department at Paris Island, near Charleston, S. C. It provides for the construction of roads, sidewalks, sewers, water mains, electrical system, steam power distributing plant, seawall, piers, etc., at the Paris Island Marine Barracks. The John Griffiths & Son Company of Chicago is the contractor.

Shipbuilding Notes.

Andrew D. Canulette has organized the Louisiana Shipbuilding Corporation of Slidell, La., to build a shipyard on Bayou Vincent.

A. E. Welsh of Enfield, Ill., plans the organization of a \$125,000 company to build a shipyard for wooden vessels at Tarpon Springs, Fla.

Wooden ships will be constructed in a shipyard which the Anclote Shipbuilding Co. will establish at Tarpon Spring, Fla. A site has been obtained on the Anclote River.

For West Virginia Development.

Coal land in West Virginia will be developed by the American Eagle Colliery Co. of Charleston, incorporated with \$600,000 capital. George S. Couch, V. L. Black and L. G. Summerfield are among the incorporators.

Ships Lately Launched in Fourth District.

Jacksonville, Fla., July 5—[Special.]—The Fourth District of the United States Shipping Board Emergency Fleet Corporation contributed a total of 21,000 tons of new shipping to the merchant marine on July 4 when two composite, one steel and three wooden ships of 3500 tons each were launched by the various yards. This new tonnage would have been increased if the American Shipbuilding Co., Brunswick, Ga., had not launched the new steamship Alabat on June 29 ahead of schedule.

The yards to each launch a ship and its official name are as follows: Merrill-Stevens Company, Jacksonville, steamship Apalachee, 3500-ton composite; Terry Shipbuilding Corporation, Savannah, steamship Oglethorpe, 3500-ton composite; Morey & Thomas Company, Jacksonville, steamship Bedminster, 3500-ton wooden; Tampa Dock Co., Tampa, steamship Agria, 3500-ton wooden; Tampa Shipbuilding Co., Tampa, steamship Everglades, 3500-ton steel; United States Shipping Board, Jacksonville, steamship Baxley, 3500-ton wooden.

The June launchings in the Fourth District were as scheduled, no yard holding over its vessels nearing completion until the Fourth of July, which makes these contributions to the new American merchant marine doubly appreciated. The yards to launch ships in June were: Terry Shipbuilding Co., Savannah; J. M. Murdoch, Jacksonville, who launched the steamship Darcey, a 3500-ton wooden steamer, on June 24; Merrill-Stevens Company, American Shipbuilding Co. and Tampa Dock Co. Launchings in July will occur at intervals, as many yards will concentrate their men on getting out new cargo carriers as fast as possible.

Ship Launchings on Independence Day.

Washington, D. C., July 13—[Special.]—Fifty-three wooden ships were launched July 4, of a total of 95 sent down the ways in Uncle Sam's "big splash" of defiance to Kaiser Bill. Technically, the number of ships launched was not 95, for the reason that two hulls stuck to the ways, eleven were held up by a sudden freshet on the Columbia River and eight were launched on the eve of the holiday through tidal or other causes. But because the Columbia River ships were ready for release, and because their crews stuck to their posts until midnight in the hope that the swollen water would subside, the Shipping Board officially includes the ships as launched.

The approximate dead-weight tonnage of the 95 vessels was 474,464, as against 437,886 tons originally intended. The wooden ships totaled 187,000 dead-weight tons.

Shipbuilding at Jacksonville.

Jacksonville, Fla., July 9—[Special.]—The launching of the auxiliary schooner G. H. Barnes at the G. S. Baxter shipyard marked the completion of the third vessel of this character to be built there for Armour & Co. This new vessel is a 2500-ton wooden schooner, length over all 225 feet, beam 41 feet 5 inches and draft 21 feet. It is equipped with twin screw auxiliary engine for a speed of 8½ knots per hour. The vessel was christened by R. H. Potter, who took over the yard recently from the G. S. Baxter company, and this is the

last ship to be built on this site by that concern, as the frontage on the St. Johns River has been leased by the Terry & Brittain Shipbuilding Co. for the construction of a 10,000-ton drydock and marine railway and shipyard.

The big concrete ship plant of A. Bentley & Sons Company, which will be located in Jacksonville, is also rapidly completing its preliminary plans regarding the St. Johns River site donated by the Cummer Lumber Co. and the Atlantic Coast Line Railroad. As soon as these two yards are in full operation the total number of men employed in the shipbuilding industry of Jacksonville will be 25,000, as the four big yards now constructing ships are running with full shifts.

Norway Builds Wooden Ships.

[Copenhagen Politiken.]

In Norway the shortage of steel has forced many yards to build ships of wood, and with the good traditions which Norway—from the last part of last century—has on which to build wooden ships, there is reason to believe that the experience will stand the country in good stead.

In the Sorland district there are a number of yards for building wooden ships which have not been used for many years, or at least have been used only for overhauling keels and repairing the comparatively few sailing ships still left. Now, however, one after another of these yards is awaking to new life, and yards are being built where they are not already found. In all, there are probably about 80 shipyards.

The building of wooden ships demands absolutely competent builders and carpenters. Quite a few are still to be found in Norway. Many have been educated in American shipyards, where they have seen the newest machinery and methods, and it is therefore of no little importance that they have placed their experience at the disposal of the awakened Norwegian wooden-ship industry.

Besides the advantage of having these competent people available, Norway has the additional advantage of possessing sufficient timber suitable for shipbuilding to last for several years. It seems difficult, however, to get enough heavy timber, and timber for ribs, knees, etc. This to a certain extent checks the development and at the same time puts a limit on the size of the ships.

Because of the lack of sufficiently heavy timber for keels, these parts are being built of pieces of smaller transverse, while for the ribs and knees a new construction is used, namely, straight timber in connection with iron wherever possible. Cast steel knees have also been used, as well as steel frames covered with wood, at many of the yards which have sufficient steel at hand.

The size of the ships building in Norway at present varies a great deal. Most of them are from 100 to 300 tons gross, but ships of 500 and 600 tons are also built. The largest ship on the ways is about 700 tons, with a carrying capacity of 1000 to 1100 tons dead weight. Most of these ships are more correctly lighters. Some of them will trade with Denmark, but only a few will be large enough to be used on the North Sea and the Baltic.

The aggregate tonnage of the ships building is 12,000 to 13,000 gross tons, which is quite a considerable addition to the greatly reduced Norwegian merchant marine

This, however, is only one-fourth the total yearly production of steel ships during the years just before the war. The new ships are equipped with combustion engines. The rigging is the fore-and-aft, which has won great favor in America and which is especially adapted for ships with auxiliary motors. Some of the boats will have to get along with motors alone, while some of the fishing boats are equipped with steam engines.

This building of wooden ships is only in its first stage, but sooner or later it will be an important means of averting the threatening tonnage need which, especially for Norway, might have unpleasant consequences.

Big Contract for Mobile.

Contract has been signed with the Emergency Fleet Corporation for the 12 steel steamships for which the Mobile (Ala.) Shipbuilding Co. was recently reported negotiating. These vessels will cost \$1,000,000 each, and will make 24 that the company will build for the Government, \$24,000,000 in all. It is understood that the new contract is transferred from the Jahneke Shipbuilding Co. of New Orleans, which decided to continue building only wooden steamships and seagoing barges, for which its plant is completely equipped.

Doullut & Williams Shipyard.

Plans and specifications have been prepared for a one-story 500x100-foot and a 60x40-foot shipyard building for the Doullut & Williams Shipbuilding Co. of New Orleans, the first improvement to cost \$300,000. This corporation was mentioned recently among the new organizations. It is capitalized at \$1,000,000, with W. Horace Williams as general manager, and will build a plant for the construction of 9000-ton steel steamships, having a \$15,000,000 contract from the Government.

New Contracts for Baltimore Shipyard.

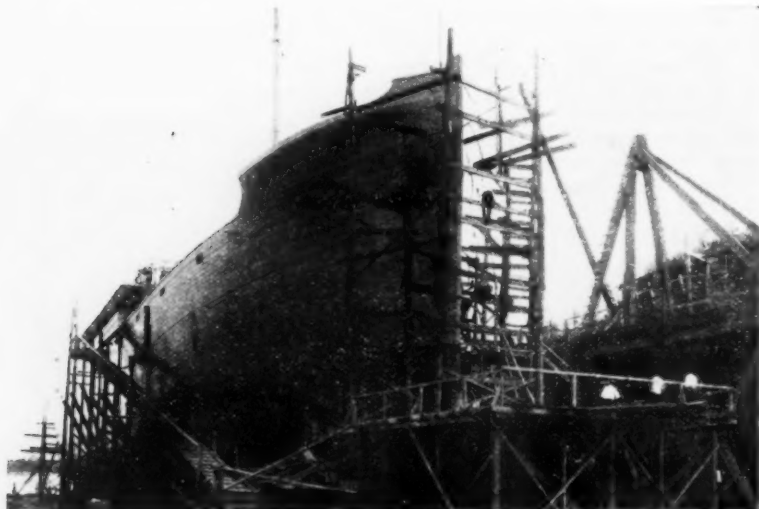
The Coastwise Shipbuilding Co., Baltimore, has received a contract from the Emergency Fleet Corporation for the construction of five schooner-barges, each of 2500 tons displacement. Each barge will be 241 feet long, 38 feet beam and 20 feet 6 inches deep. From the Coastwise yard the schooner-barge Cohansy, 1300 tons, was launched on June 29, ready to take on coal. This was the eighth vessel of its type to be launched by the Coastwise company within 14 months.

Gulf States Plant for Orange.

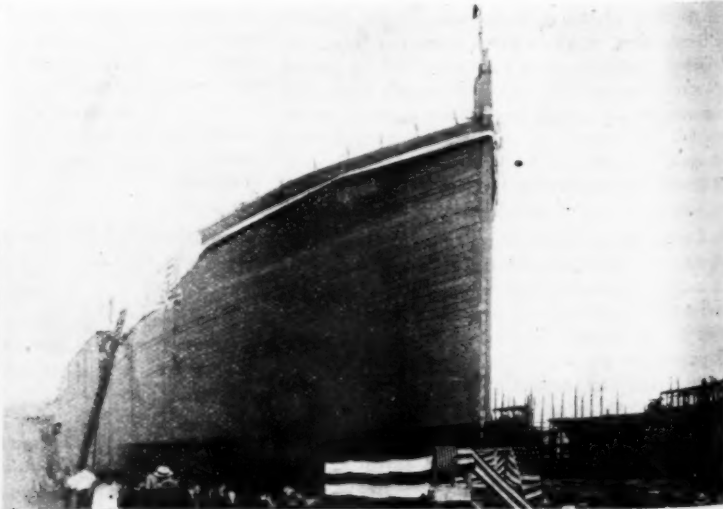
Orange, Tex., has been selected as the location of the plant which the Gulf States Shipbuilding Co. of Dallas was mentioned recently as planning for Orange or Beaumont. A 22-acre site on the deep-water channel of the Sabine River has been purchased and preparations are being made to begin construction. It is understood that the initial investment will be \$800,000 for shipyard equipped to construct 6000-ton wooden steamships for the merchant trade.

For Fabricated Ships.

The Fabricated Ship Corporation, Richmond, Va., has been chartered with \$1,000,000 capital and these officers: A. L. Langley, president; C. P. Royster, vice-president; R. Grayson Dashiell, secretary.

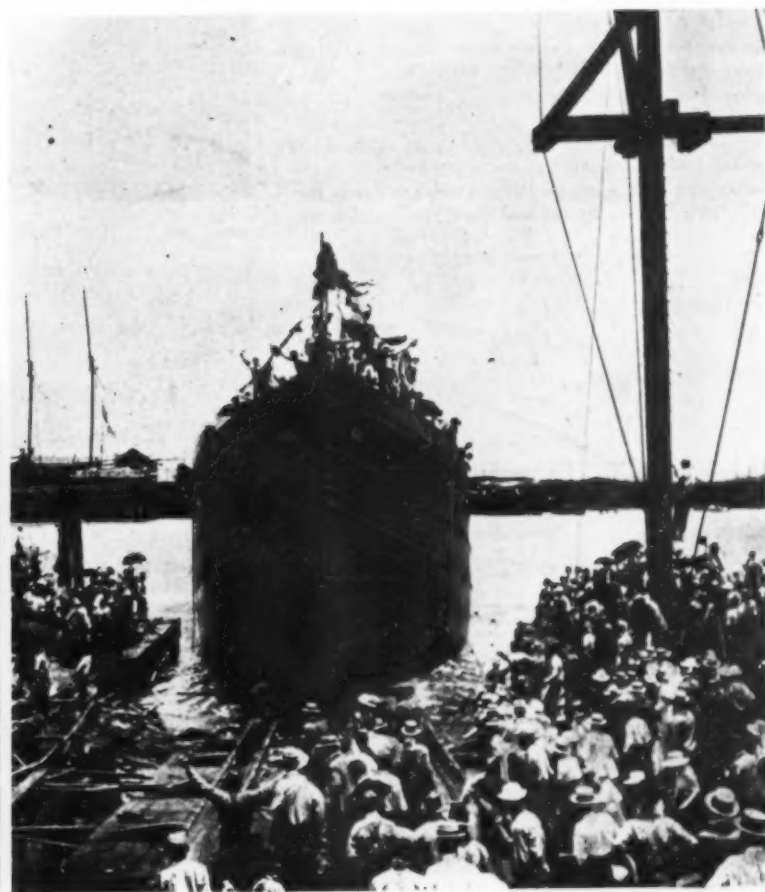
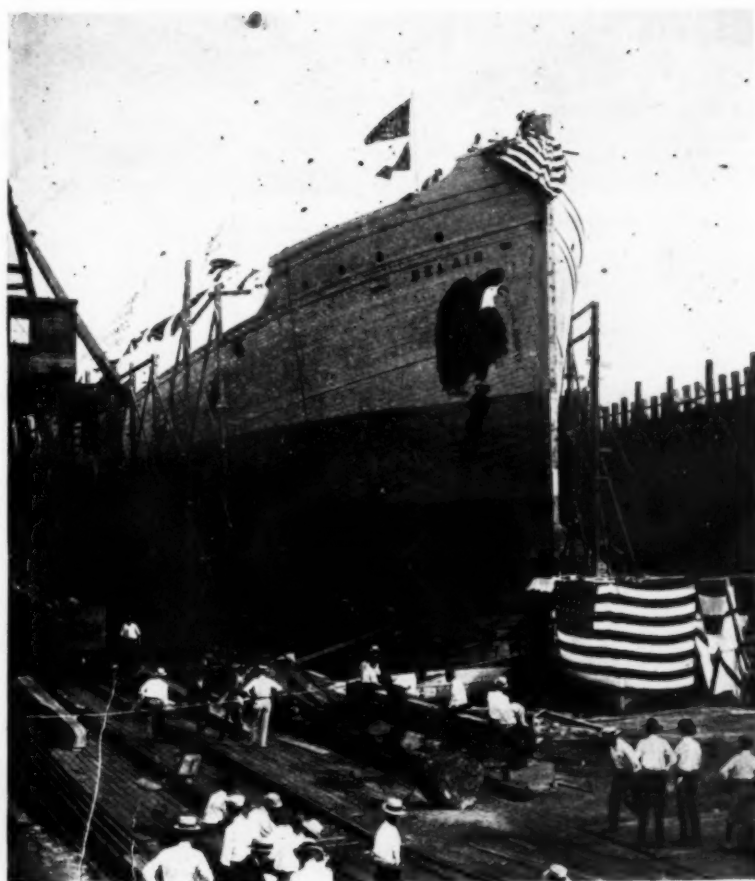
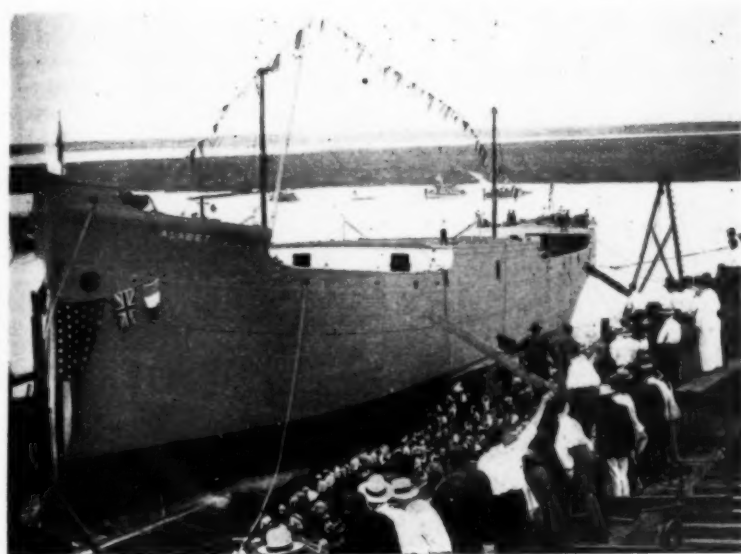
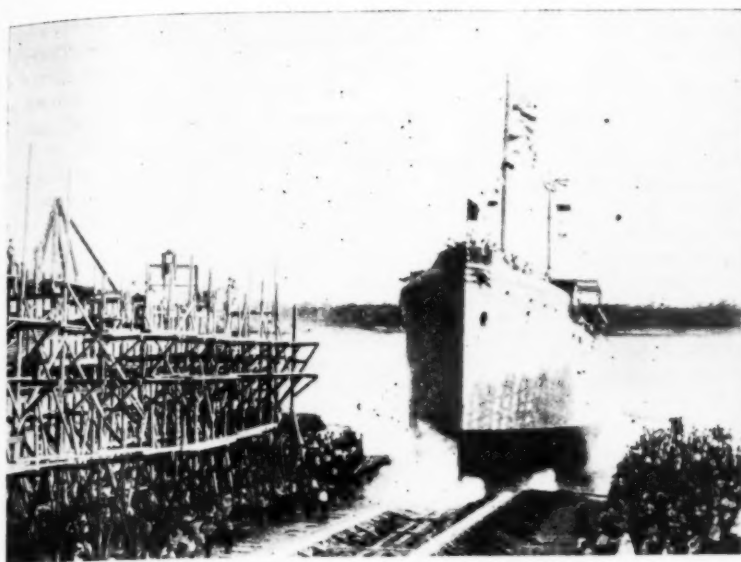


3500-TON WOODEN STEAMSHIP AGRIA, FERRIS TYPE, BY TAMPA DOCK CO., TAMPA, FLA.



3500-TON COMPOSITE STEAMSHIP OGLETHORPE, BY TERRY SHIPBUILDING CORPORATION, SAVANNAH, GA.

SOME INDEPENDENCE DAY SHIP LAUNCHINGS AT SOUTHERN YARDS, TYPICAL OF SHIPBUILDING ACTIVITIES AT PRACTICALLY EVERY SOUTHERN PORT.



Extensive Railroad and Industrial Improvements on Baltimore Harbor

In this group of illustrations are represented several of the important railroad terminal improvements and large industrial plants erected along the harbor of Baltimore within the last two or three years. Here has been and is being witnessed one of the greatest industrial developments at tidewater ever seen in this country. The fact that three of the Eastern trunk-line railroads, viz., the Pennsylvania, the Baltimore & Ohio and the Western Maryland (which latter really brings the New York Central lines into Baltimore), all have large terminals at this port, coupled with the 35-foot channel from Chesapeake Bay, only a few miles away, to the steamship piers, has made this locality particularly attractive to capital and enterprise, with the result that some of the largest plants of their kind have been placed here.

Besides, there has been a tremendous development in shipbuilding, for which Baltimore has been famous since the war of 1812-14, when the achievements of the Baltimore clippers made the city renowned all over the world. The Bethlehem Steel Co., for instance, which little more than a year ago acquired the Sparrows Point steel works and the shipbuilding plant, both previously owned by the Maryland Steel Co., has largely increased its capacity for the construction of steamships as well as for the production of steel (and that, too, in a community which has been strictly prohibition since it was established a third of a century ago), and the Baltimore Shipbuilding & Drydocks Co., which has two plants in Baltimore, one of which has a double frontage upon the harbor, has likewise enlarged its production and has established a record in the rapid building of fine freight steamships. There are several other yards devoted to building wooden ships.

All of the railroad terminals have been enlarged, coal-handling facilities have been tremendously increased on account of the huge quantities of fuel now exported, and facilities for the reception of imports have also been greatly improved. In addition to the trunk-line harbor terminals, there is the independent terminal of the Canton Company, which has a small railroad system of its own operating in connection with its dock and wharf facilities, and there is also the Municipal Belt Line, constructed by the city along the inner harbor, and which is to be extended to further meet the needs of the trade of the port. Railroads have also been built to the new industries to connect them with the main lines.

There are three branches of the Patapsco River upon which Baltimore is situated. The northwest branch includes the principal ocean steamship piers, part of the railroad terminals and the inner harbor for the use of local steamboats. The middle branch includes other ocean steamer piers and railroad wharves, and the southwest branch also presents opportunities for a further development of wharves and docks, although its use for general shipping has not progressed in the same degree as have the others. Then there are Curtis Bay and Curtis Creek, Stonehouse Cove, Bear Creek and

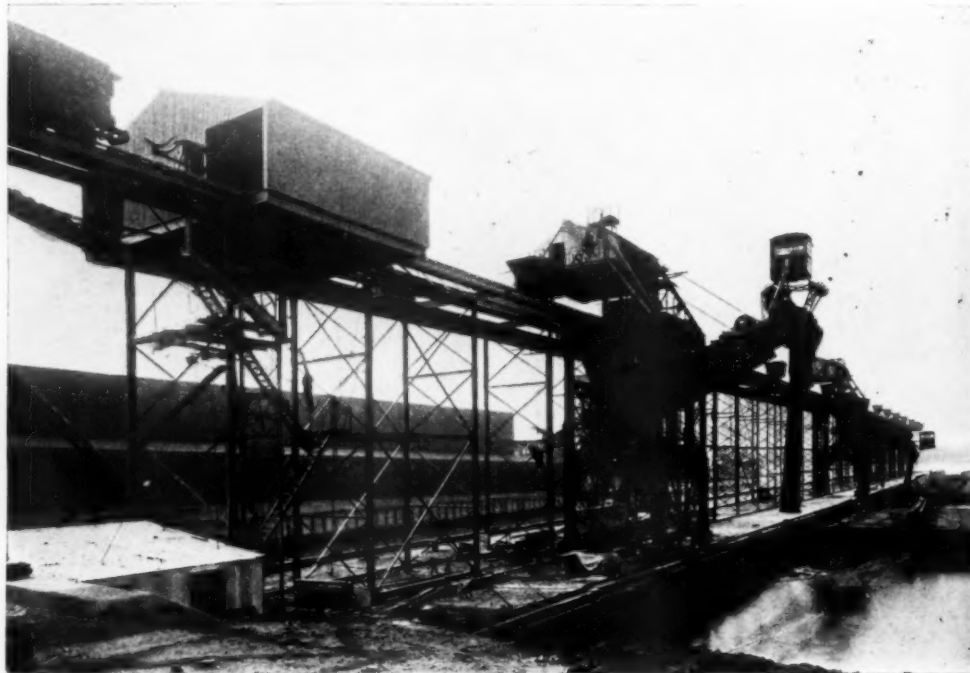
other waters close to the city on which industries have located and on which other enterprises are gradually being established.

Thus the changes which have taken place here within the last 10 years are astonishing and impressive, and, as might have been expected, the rise of land values along the water was surprising, except to those who had with prophetic vision studied the situation. Shore resorts of both public and private character are no more, the owners having disposed of them at good profit, and they are superseded by huge industrial plants whose streamers of smoke float from tall chimneys athwart the waters day and night. Apparently there is no end in sight to the possibilities of this section, so excellent are all its transportation accommodations, both by water and by rail.

The Canton Company, organized before the Civil War, has an extensive tidewater terminal of 120 acres, shown in the accompanying illustration. It is an independent corporation owning 1600 acres of land in the suburb of Baltimore known as Canton. Besides two big piers with an aggregate floor space of more than 200,000 square feet, the company also has eight large storage warehouses, with nearly 300,000 square feet floor space. Both of these buildings are near the center of the picture, and farther to the right is seen the ore pier, with its unloading bridge for lifting ore from vessels to cars. The company has 25 miles of railroad

connected with its terminal, and it also has direct connection with the three trunk-line railroads, the Pennsylvania, the Baltimore & Ohio and the Western Maryland, which enter Baltimore. The company's railroad serves various industries located on its extensive property. There is also connection with steamship lines, and from the piers to the main channel of 35 feet depth there is a depth of 30 feet direct. The material seen piled in the yards between the tracks is 40,000 tons of scrap metal, including steel rails, castings, etc., which was stored there for export but which, on account of the greatly increased demands for iron and steel in this country, was used here.

The coal pier of the Pennsylvania Railroad, also at Canton, has a capacity of about 6,000,000 tons a year, or about 20,000 tons a day. It is more than 900 feet long and 66 feet wide. Connected with it is a thawing-house for treating wet and frozen coal, so that it may be handled by the conveyors to ships, this house having a capacity of 30 cars. Four vessels may be loaded simultaneously at the pier, two of them on each side. In operating the pier the loaded coal cars are pushed by a yard engine up on a "kick-back," and from there they proceed by gravity to the dumper, where they are lifted and turned over so that the coal falls into a hopper. Beneath the hopper are run small four-ton cars which are filled from it, and they then run along the trestle-work of the pier to the traveling unloaders,

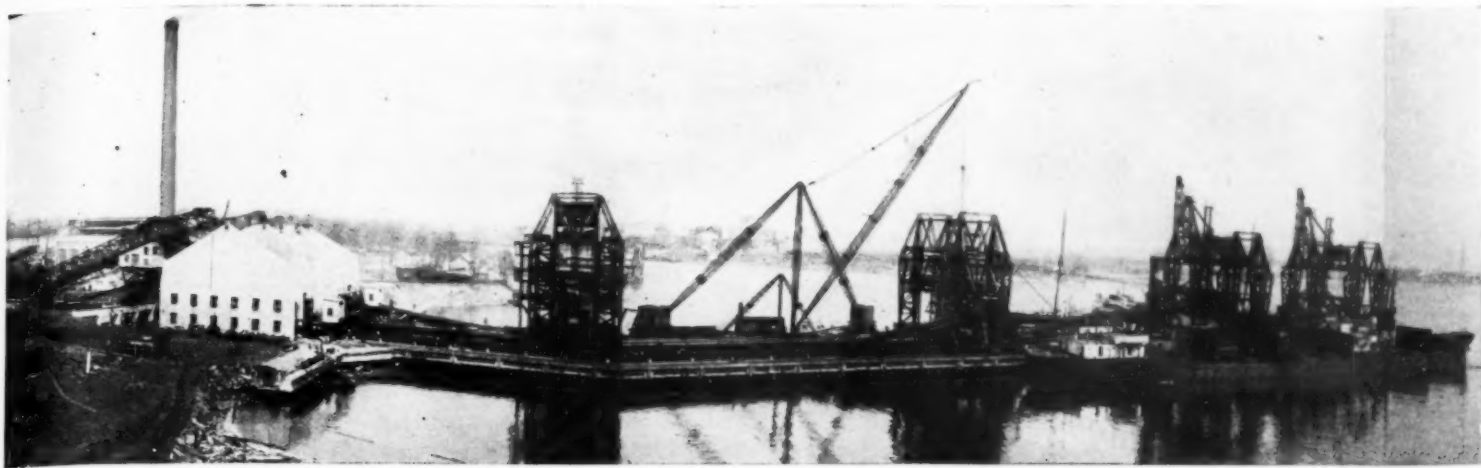


PENNSYLVANIA RAILROAD COAL PIER, SHOWING UNLOADERS.



CURTIS BAY CHEMICAL COMPANY'S PLANT, INCLUDING

LARGEST



BALTIMORE & OHIO RAILROAD'S NEW COAL PIER AT CURTIS BAY.

which receive their contents in hoppers, and then, by means of elevators and telescopic chutes, send the coal into the holds of the ships. This improvement cost \$1,000,000.

The Pennsylvania Railroad has also begun the construction of a very large grain elevator at Canton on the site of one of its elevators which was burned about two years ago. This elevator is expected to have a gross capacity of 5,000,000 bushels, and at it 20 of the largest grain cars may be unloaded and five large steamships loaded at the same time. A picture, made from the architect's drawing, is presented showing how the

improvement will appear when completed. The erection of this elevator will increase the tidewater grain elevator capacity of the port to 10,000,000 bushels, for the Baltimore & Ohio, the Pennsylvania and the Western Maryland roads now have a total of 5,000,000 bushels on the harbor front, in addition to their elevators at other points in Baltimore.

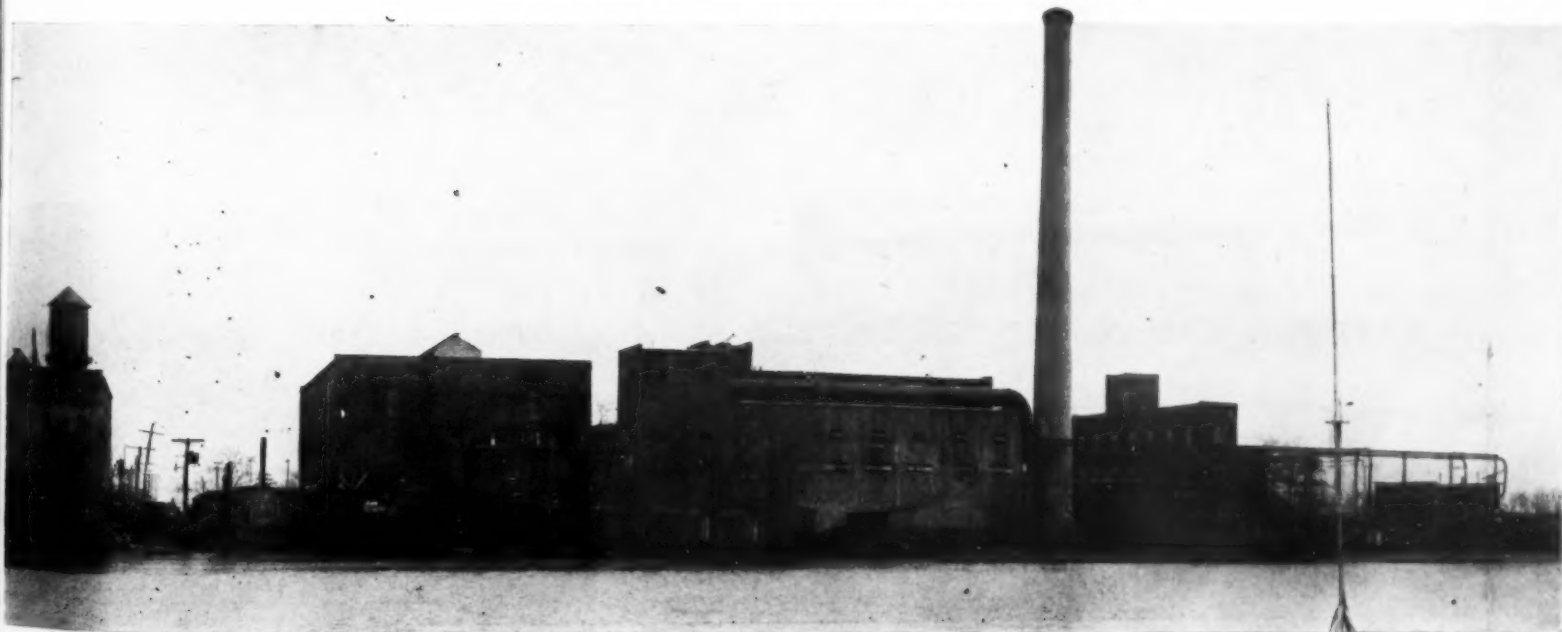
The sulphuric acid plant of the Davison Chemical Co. fronts on Baltimore harbor at the southern side of Curtis Bay, and it is the largest of several industries in that vicinity. Since the beginning of operation in 1910 many additions and improvements have been made

to this plant, which is now about four times as large as it was first planned to be. The amount of materials handled every month is 125,000 tons, or a total of about 1,500,000 tons a year. The production of acid is 400,000 tons a year, of which about 325,000 tons are chamber acid and the rest 66-degree acid. The capacity of the acid phosphate plant is 450,000 tons a year.

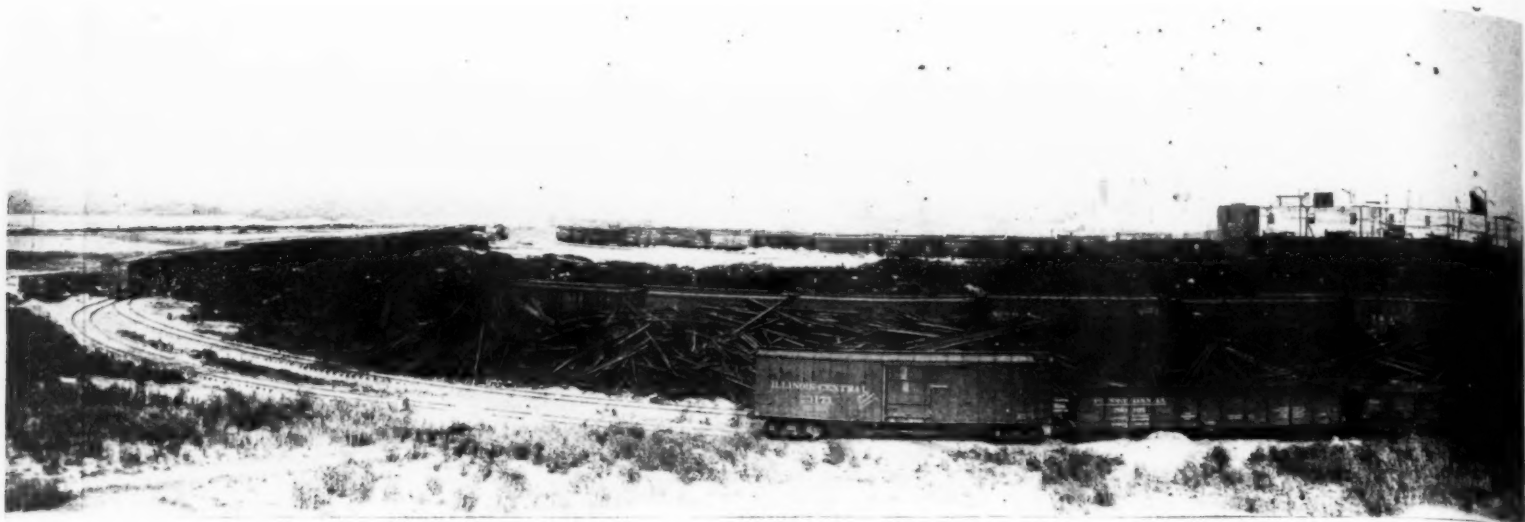
Another great industrial establishment at Curtis Bay is that of the Curtis Bay Chemical Co., which is a subsidiary of the United States Industrial Alcohol Co. It occupies part of a tract of 75 acres, on which is also situated the plant of the Curtis Bay Distilling Co., an-



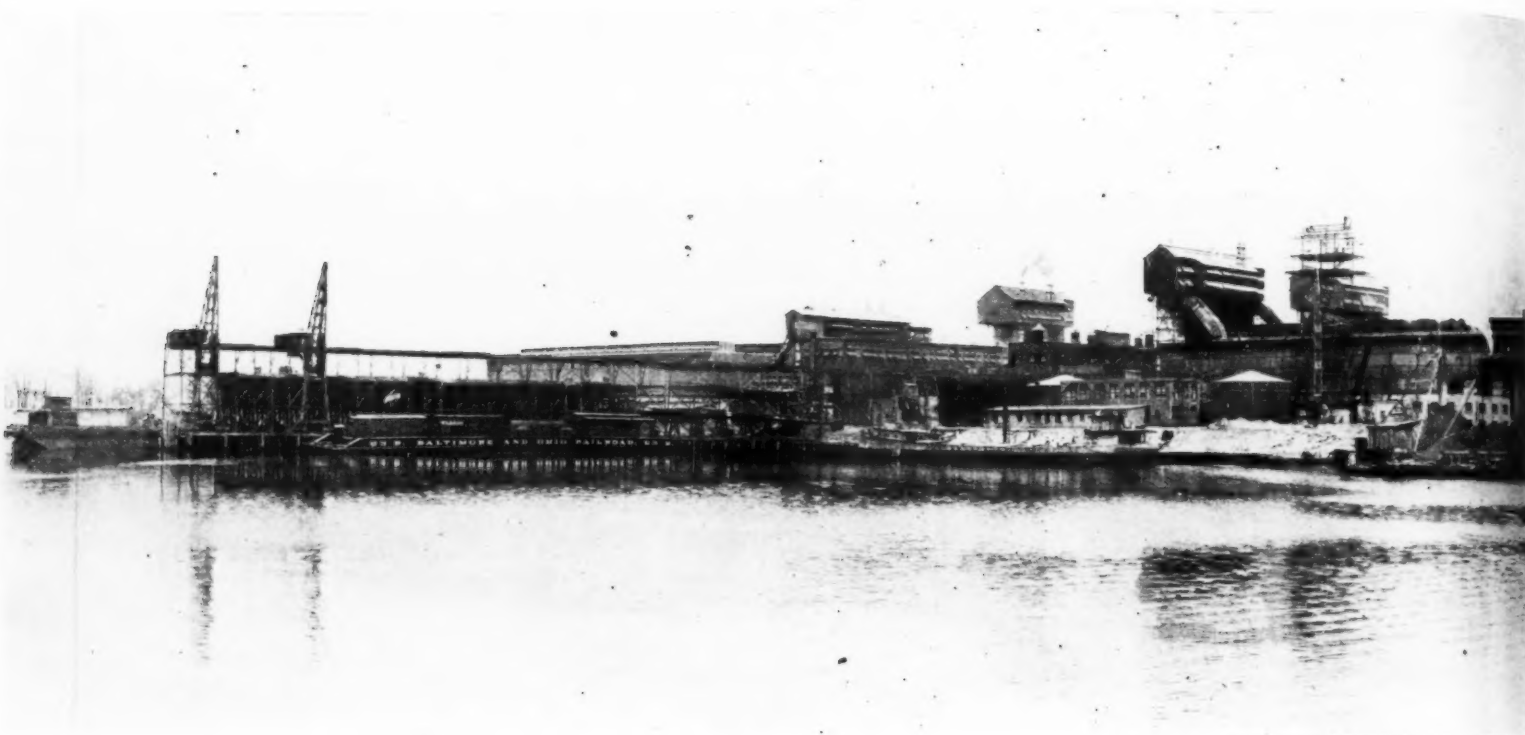
PENNSYLVANIA RAILROAD GRAIN ELEVATOR UNDER CONSTRUCTION.



LARGEST INDUSTRIAL ALCOHOL DISTILLERY.



CANTON COMPANY'S TERMINALS. 40,000 TONS OF SCRA



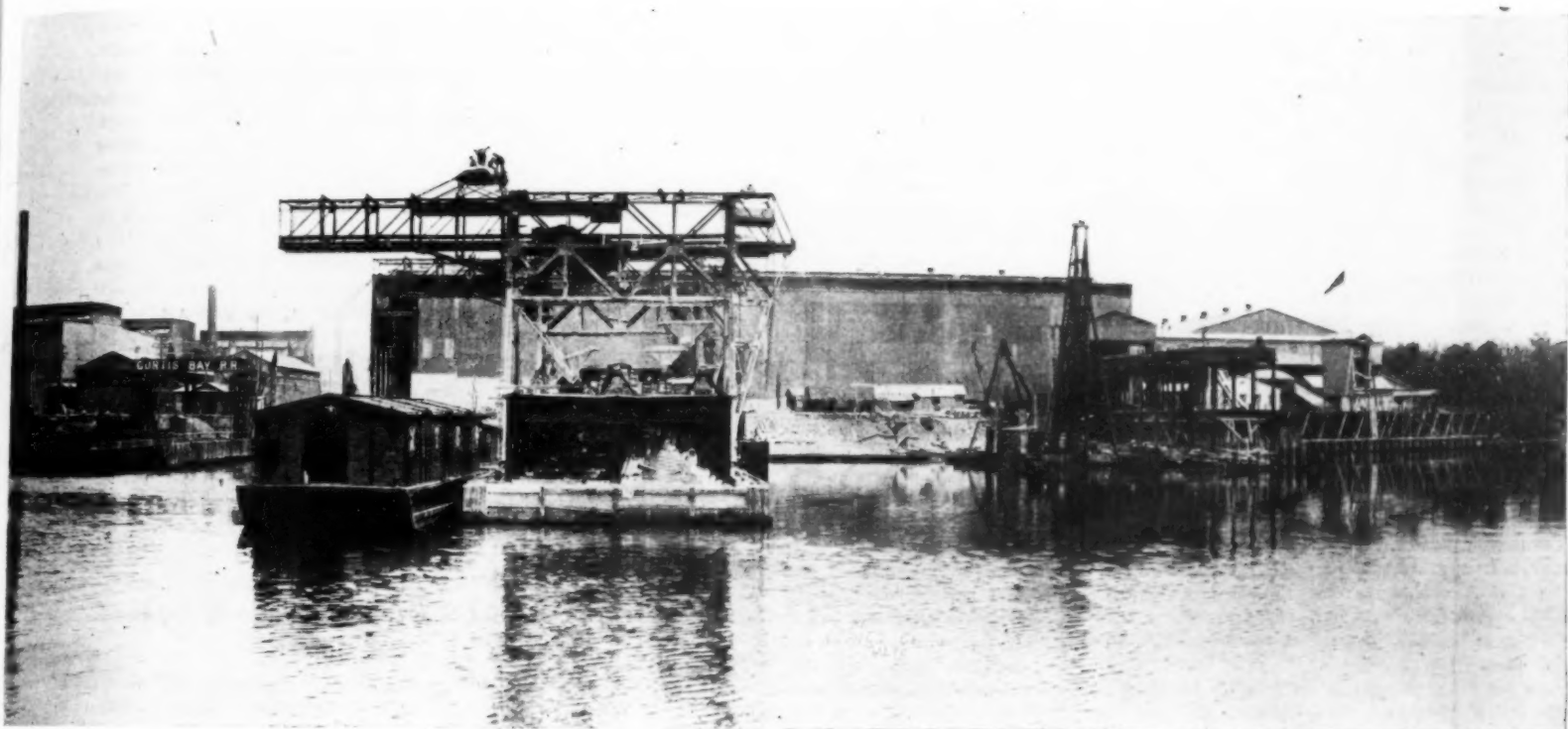
DAVISON CHEMICAL COMPANY



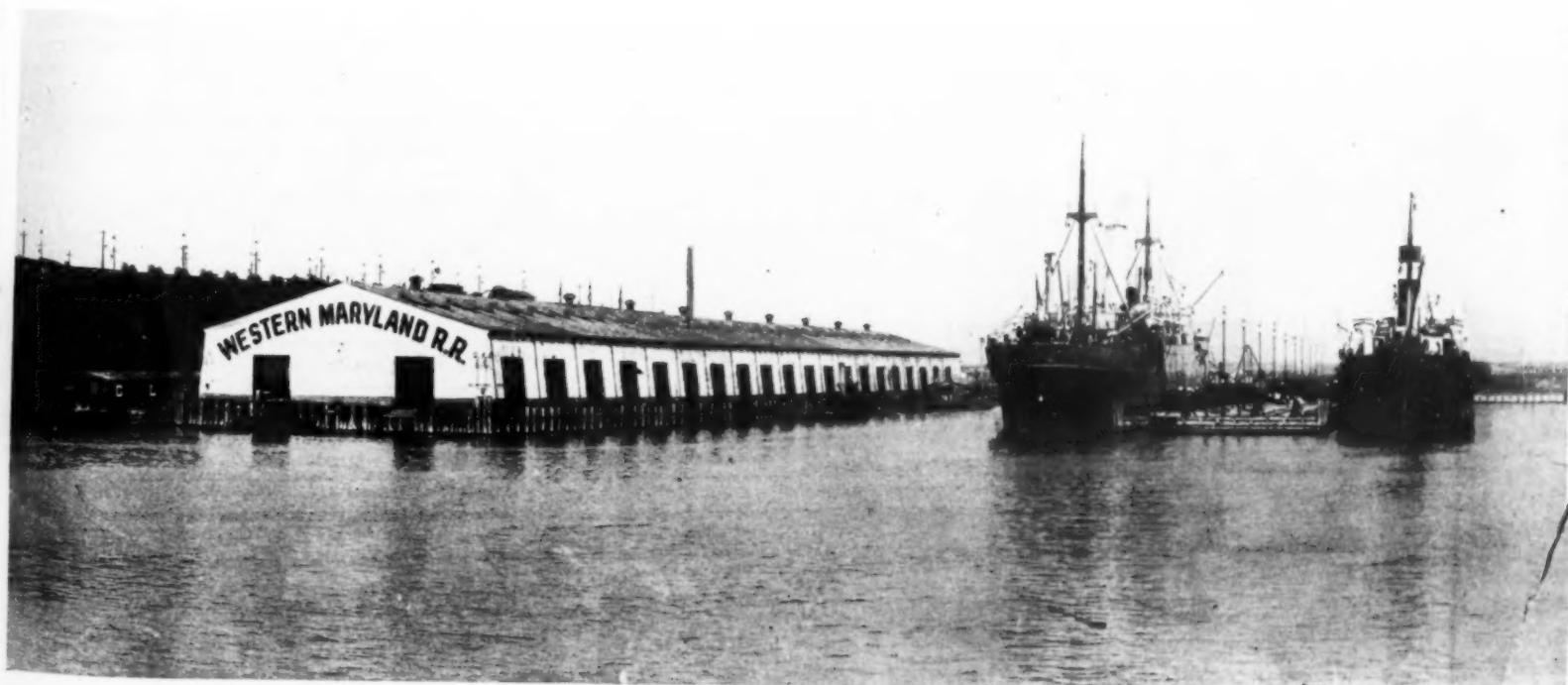
BALTIMORE TERMINAL WEST



STEEL, RAILS, ETC., STORED BETWEEN TRACKS.



SULPHURIC ACID PLANT.



MARYLAND RAILWAY—PORT COVINGTON.

other subsidiary of the same parent company, and having the largest industrial alcohol distillery in the United States. The Curtis Bay Chemical Co. has eight units for the manufacture of acetic acid from denatured alcohol, and there are also numerous other buildings essential to its operations. No steel was used in the acid buildings proper, because of the corrosive effect of the fumes upon metal. The walls are of hollow tile, finished with stucco. Floors are of cement. Most of the buildings are large, four of them measuring 325x188 feet each, and each being two stories high. The buildings of the Curtis Bay Distilling Co. are also big, 12 of them averaging 380x120 feet in size, and they range from one to five stories in height. Large quantities of West India molasses are imported for the manufacture of alcohol, this substance being stored in tanks until needed for distillation. These combined plants represent a \$5,000,000 enterprise.

A general view of the largest coal pier of the Baltimore & Ohio Railroad system at the Curtis Bay terminals on Baltimore harbor is also illustrated. It is said by the company that this is the largest coal pier in the world. It has a capacity of 12,000,000 tons a year, or a maximum capacity of 7000 tons per hour. The entire improvement cost \$2,500,000. It is electrically operated, and it is possible to work on four vessels at the same time, loading them with both cargo coal and bunker coal simultaneously. The pier eliminates the objectionable breakage feature encountered when loading vessels by the old gravity system, as the new method employed here handles the coal wholly by mechanical means, a system of belts, towers and conveyors moving it continuously from the cars to the holds of the vessels.

The American Refractories Co., whose plant at Brooklyn, one of the suburbs on Baltimore's harbor, is shown herewith, manufactures chrome and magnesite brick, which are necessary to the manufacture of high-grade steel. About 25,000 bricks are made every day. These buildings are large, one being 200x60 feet in size and another 200x80 feet. Besides, there are other structures of lesser capacity. They are built of brick, concrete and steel, and they have ample illumination, 20,000 square feet of glass being used in the windows. The company owns 16 acres of land, so that there is room for the enlargement of the plant when necessary. Electric power is employed for operating.

The Port Covington terminal of the Western Maryland Railway, which is on the southern edge of the city itself, is situated on the north bank of the middle branch of the river, and, as the accompanying picture shows, there are extensive wharves, together with a great elevator of the most modern construction and a large coal pier. This railroad development began several years before the period mentioned in the beginning of this article, but it has been added to and otherwise improved since then, and, with the increasing traffic coming here owing to the road's relations with the New York Central lines, it promises to be soon of much larger dimensions.

Texas Plans for Handling Big Cotton Crop.

Austin, Tex., July 13.—[Special.]—An effort will be made through the departments of agriculture of the several cotton-growing States to perfect an organization among the farmers with the view of marketing the coming cotton crop in a more systematic manner than formerly. By doing this the price may be maintained at a higher figure than would be the case otherwise, it is claimed. Fred W. Davis, State commissioner of agriculture, who attended the recent cotton conference in New Orleans, in discussing the matter, said:

"At a recent meeting at New Orleans of the Southern States Advisory Marketing Board, composed of the agricultural commissioners, directors of marketing boards and heads of farmers' organizations of 10 Southern States, plans were discussed and agreed upon to aid the farmers in having something to say about the price of their 1918 cotton crop.

"Each State agricultural commissioner will appoint a county chairman for each county, who, in turn, will designate three influential farmers in each school district to secure pledges from the farmers to hold off the market every third bale of cotton of the 1918 crop, and to sell only 20 per cent. of the remainder during any one month. When a grower has his crop mortgaged there remains a chance that he may be enabled to hold a portion of his crop, at reasonable rate of interest, through the agency of the Federal reserve banks.

"The coming crop bids fair to be a large one, though with present drought conditions in the west half of Texas, along with recent boll-weevil reports from some of the other Southern States, big crop estimates bid fair to suffer material discount."

The Texas State Council of Defense has officially endorsed the resolution adopted at the New Orleans cotton conference, that the Federal Government fix a price on the surplus 4,000,000 bales and the new cotton crop consistent with what is charged the consumer for articles manufactured from cotton, and allowing the producer a reasonable profit. According to representations made to the Council of Defense, there is a cotton surplus of 4,000,000 bales and a new crop in sight of possibly 15,000,000 bales, whereas the capacity of the spindles in American mills is but 7,000,000 bales and the facilities for export are placed at a maximum of 5,000,000 bales. The problem of disposing of the 7,000,000 bales thus unaccounted for was conceded to be of grave importance.

Judge W. F. Ramsey of Dallas, Federal reserve agent, said that if the Government does not fix a price on cotton he hoped that the State Council of Defense would push a movement to encourage the farmers to market their cotton gradually, so that banks can absorb and carry the burden, and not rush it on the market when satisfactory prices are offered. The council agreed to carry out the suggestion.

That the cotton exported from the Southwest represents the balance of trade in favor of this district was the statement of Judge Ramsey. While a collapse in cotton prices would spell disaster for the Southwest, he

pointed out that the Government is requisitioning 60 per cent. of the output of many of the cotton mills, and that he looked for the mills of the United States to consume from 8,500,000 to 9,000,000 bales this coming year, or more than ever before. He also stated that at the rate ships are being built there should soon be a large merchant marine, and that he hardly looked for many soldiers to be sent to Europe during October and November, as that would likely mean unnecessary expense over there during the winter, when little fighting can be done. Both of these items likely mean increased shipments of cotton abroad, he said. That Japan is taking more cotton than ever before, and that he hoped China would soon become a heavier importer, was the statement of Judge Ramsey.

Important Ruling in Case of Cottonseed Crushers.

Robert Gibson, secretary of the Texas Cottonseed Crushers' Association, Dallas, Tex., has sent a circular letter to all cottonseed-oil mills in Texas and others interested in answer to numerous questions received concerning points covered in an official communication from the United States Food Administration six months ago. This communication is reproduced in full. It says that a study of the number of presses in operation indicates that there is ample pressing capacity to care in an economical way for all the cottonseed from a normal cotton crop, and that there is no necessity for the operation of idle plants or for the erection of new mills. Therefore, any plant which has not been operating during the seasons of 1916-17 and 1917-18 will not be allowed to operate without first securing a permit from the Food Administration. To obtain this it will be necessary to show that the operation of the plant is a public necessity and for the public good. Reasons must also be given to show why the plant has not been operated. Proposed additions to plants must also be explained similarly in the case of all factories and special permits must be obtained to add any hydraulic or expeller presses. Otherwise no allowance for the additional pressing capacity will be made under Section A of Rule 7. It is further stated that the Food Administration desires that there be secured such necessary machinery as will bring about the very greatest possible yields from the present presses, and that the greatest amount of food and feed may be produced from the raw material.

Labor in New Orleans Secures Record-Breaking Wage.

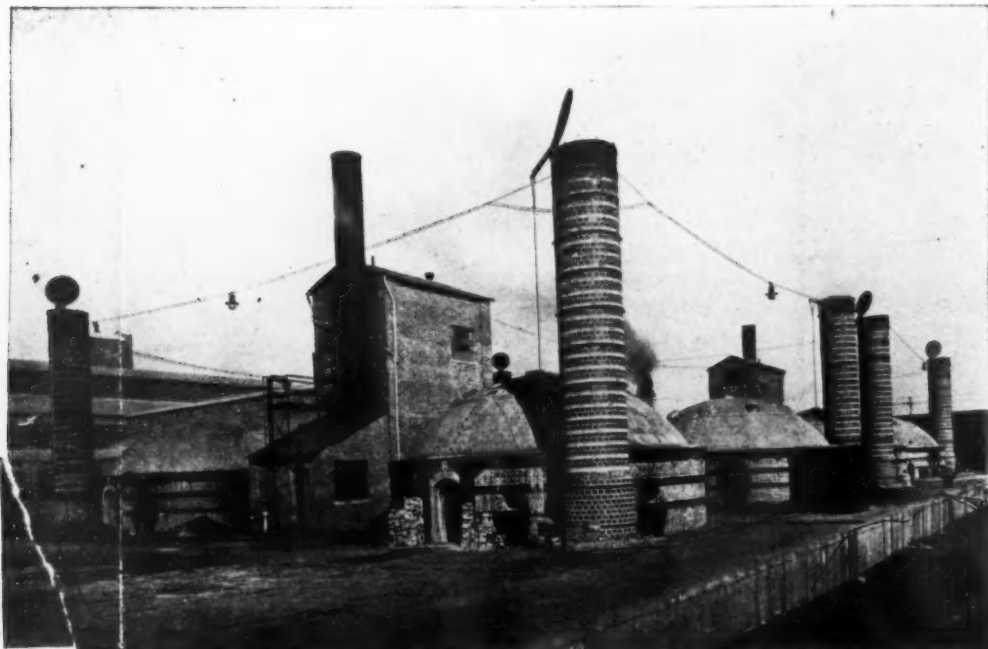
New Orleans, La., July 11.—[Special.]—For the first time in the history of New Orleans, common labor will be paid 30 cents an hour. The new scale has just been established by The Foundation Company, which is building a shipyard on the right of way of the Industrial Canal. The dock board, which is digging the canal, and Doullut & Williams, a firm building another shipyard on the right of way, will meet the raise, as will every industrial enterprise in the city, it is expected.

The previous rate was 25 cents, but these enterprises were unable to secure enough labor at this figure, as industries in nearby cities were offering 30 cents and even more.

Last year labor was paid 20 cents an hour here. The rate was gradually raised by these foreign industries which had Government contracts on the cost-plus basis. They didn't care what they paid for labor, so long as they got it. Now representations are being made to the Government to prevent them from over-raising New Orleans again. The ships for which contracts are held here are not on the cost-plus basis, but on a flat contract, and the possible losses, with production costs continuously climbing, are apparent. In view of the announced plans of wage standardization, it is expected that the Government will take proper action.

Thus the problem so far as unskilled labor here seems to be solved. In skilled labor, however, the New Orleans scale is generally lower than that paid elsewhere. A notable exception must be made in the case of the metal trades, whose employees by a strike several months ago secured a wage they consider fair.

But that the tendency is equally bullish here is shown by the recent raise of the carpenter's rate from 40 to 52 cents an hour and of piledrivers from 45 to 54 cents.



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News and Views from Our Readers

Basis of Royalty for Mineral Development—Importance of Utilizing All Our Resources Suitable for War Work.

CHARLES CATLETT, Chemist and Geologist, Staunton, Virginia.

It is an old saying that the hardest man to deal with is the man who has no true knowledge of cost or of values. Anyone who has had anything to do with mineral land development will encounter many instances illustrative of this, and many promising deposits have failed to be developed, and have failed to add to the wealth of the country and of the individual, because of an incorrect idea of values. The tin deposit in Rockbridge county, Virginia, is a case in point. It was discovered in 1883, and, while values have not been conclusively demonstrated, that deposit has been characterized by a well-known authority as the most promising deposit in the United States. Yet disagreements as to price, title, etc., have held it unproductive for a quarter of a century, in spite of the great needs of this country for tin.

There are a great many minor minerals which are at present produced in inadequate supply in this country and which cannot be brought in freely on account of the shipping situation. Chrome ore is a mineral which has, for the moment, assumed very considerable importance. There are probably not a few deposits of this material which will remain undeveloped through this period of great need and high prices because of a failure to recognize conditions and appreciate what would constitute a fair arrangement in the way of sale or lease. I have not had the opportunity to examine them myself, but the information which comes to me is that the deposits of chrome ore on the line of the Clinchfield Railway in North Carolina give promise of considerable output, provided the various scattered deposits could be handled as a unit and provisions be made for concentration. The value of the material rapidly increases with the grade. Many other mineral deposits might be cited in the same way.

In the thought that it might help people who are considering new propositions, with which they are not familiar, I want to point out that the common royalty on mineral properties where the lessee meets all the expense, and pays taxes on the property under lease, is 10 per cent. of the value of the product free on board the cars. There are, of course, many leases which differ from this, but a lessee who makes such an arrangement may feel satisfied that he is paying a fair and reasonable royalty, and the lessor may feel that he is receiving a fair and reasonable royalty. This will apply both to the present and the after-the-war conditions.

In cases where the amount involved is limited, where the material can be gotten out quickly and with small risk, an increase in royalty may properly be expected to be paid after the lessee has made a certain percentage on the cost of production. For instance, the lessor may receive 10 per cent. on the value on board the cars, plus 10 per cent., 15 per cent. or 20 per cent., as the case may be, of the profit, after the lessee has received a certain profit, say 100 per cent., based on the cost. There should be included in the cost, in considering any excess royalty above the 10 per cent., a large depreciation charge on equipment. This, on a production of war material, might well be 40 per cent. to 60 per cent. of the entire cost of equipment. People will not put their money into war industries without assuming that they may have to scrap a large portion of the value of the equipment within twelve months.

But what I wish to specially bring out is that 10 per cent. is a fair base royalty, in the hope that it may help people who have small mineral properties which they hesitate to lease, for fear that they may make a mistake if they decide to do so. It is most necessary for the good of the country that development take place promptly, and it is equally important to the individual that he should get the fullest possible advantage of the present high price, which can only extend for a limited time. If a man has something which may be of the slightest service in winning the war, it is his patriotic duty to make many concessions to insure its being made available now, when it is needed.

War as a Revelation of the Necessity of Prayer.

REV. LAWRENCE L. COHEN, JR., Pastor First Methodist Church South, Mangum, Okla.

In every age of rank materialism, on the one hand, unrestrained vandalism and unparalleled covetousness, on the other, it has taken war and its attending grief and pain to make fallow the soil of human nature. It is through the matrix of the open and bleeding wounds of civilization that God enters again into the life of His world, never to go out of it any more forever. Prayer is the blundering urge of the soul reaching upward through the crust of evil and enveloping darkness after an answer to the wild questions that leap sheer out of the depths of human nature. It's the primitive language of the race.

When human ingenuity has spent itself, and the brain and heart is paralyzed by the ruthless butchery and vulgar barbarism of the battlefield; when human hands fall palsied by the side and trembling limbs refuse longer to support the racked and aching bodies of men, then it is that the soul, washed in its own blood and tears, learns to call the name of God. As an old mystic has put it, "Men are tallest on their knees." They can reach farther. Mountains then become to our blinded eyes but transparent veils. Before the unclouded vision of the Intercessor they disappear as the mist before the rising sun.

Moreover, man's need becomes a revelation to the soul of the vast spiritual forces that lay outside of himself and that are alone capable of supplying the starved and withering life within. The plowshare of sorrow furrows beneath the crust of our high-blown egotism and vaunting vanity. This is the hour that God waits for, the hour that He patiently suffers to come upon us. It is then that we "falter where we firmly trod" and "falling with our weight of cares."

" * * * Stretch lame hands of faith and grope,
And gather dust and chaff, and call—
To what we feel is Lord of all!
And faintly trust the larger hope."

This as we know is the darkest hour of the world. Never before have the nations so needed God; never before was God so ready and willing to come down to men. Such a tragic hour! So vibrant, so meaningful to the race! The world is helpless. Men are powerless to stem the flow of human blood. Human hands are everywhere extended and uplifted, but cannot heal the open wounds of earth or mend the shattered framework of civilization.

Finite forces cannot be appealed to, for they have been blown to fragments by the whipping winds of war. A maelstrom of blood is upon us. We blunder as we move about with the instruments of peace. The vast incomprehensible questions that lift themselves out of the depths of men's souls can only be answered by God. Thus are we driven to our knees, for God alone can stay the wreck and ruin of earth. Prayer is our only escape. So the revival in this war-drunk, war-torn and age-crazed world of "intercessory prayer" is the revelation to the world of its need of God, for, says Mr. Wells, "Until a man has found God and been found of Him, he begins at no beginning and works to no end."

Chinese and Japanese Laborers Wanted.

F. C. GROOVER, President Groover-Stewart Drug Co., Jacksonville, Fla.

Never in the history of the South has there been the need of labor that there is today. Your journal has always been on the side of advancement of the South. There never was a time when you could do a greater service to your country than you can today.

It seems to me—with the negroes going to war, to the ammunition factories in the North and East as well as the West—the South is going to be very short of common labor; in fact, the farmers are feeling it now. The great cotton crop that is being produced now is going to be hard to gather with the present labor conditions.

It seems to me now is the time for the South to act. The Chinese and Japanese are our allies. There is plenty of labor there that this country could secure. It would be a God-send to them and to the South. Why not go out for a limited immigration from those countries each year for a number of years, allowing them to come in under Government supervision?

Plan to Increase Crop Production and Aid Returned Soldiers at Same Time.

F. W. SADLER, Horticulturist, Fort Myers, Fla.

I wish to suggest two things, both of which I feel sure would be not only a blessing to the South, but a great benefit to a large number of men and women.

First.—The South is now short of labor for the tilling of the soil, fruit and cotton picking, etc., and as time goes on this shortage will be more keenly felt. If there could be a getting together of the boards of trade of the North and South, right now, to find out how many men and women who are farmers and are occupied during the summer who could be induced to come South for the winter. I feel sure thousands could come.

Second.—There will be thousands of soldiers returning to their homes in this country when the war is over who will need help; some needing it badly. We have hundreds of thousands of the richest muck lands costing from \$20 to \$30 per acre. This land could be bought for a small cash payment per acre, divided up into 20-acre farms and set out to sugar-cane, a commodity the country very much needs, and be a good living for years to the owner for the reason there is no frost to require replanting. If enough acreage was set out to cane, mills for the extraction of the juice and converting it into sugar could be erected.

The plan is this: A wishes to help S. He or she says "I will buy 20 acres at, say, \$40 per acre; will pay \$100 cash to secure land, plus \$100 for plowing and getting ready for seed; put the prepared land to sugar-cane, corn, cabbage, potatoes," all staple crops, and profitable. The money from these crops when harvested will be used to finish paying for the land and all expenses attached, as well as reimbursing the buyer of the land. Then after he or she gets a deed, let the land be presented as a gift to such a maimed soldier needing assistance he or she may choose. They would be out nothing but the loan of their money for the year. I can show that this can be done.

Wants a Job.

E. W. TAYLOR, 1533 Washington St., Easton, Pa.

In your issue of June 27, page 51, you publish an item on "How Opportunities and Men Are Brought Together."

In contrast to this statement, I wish you could suggest a reason why over 200 letters of applications from the writer to different concerns have not brought a single offer.

The writer is a young man, and has had about 11 years' experience on engineering construction work, in addition to other work, and over 75 per cent. of his letters have gone to concerns doing war work, yet not one offer has been received.

It seems strange to me that in view of the shortage of men, some one could not utilize my services, as I don't think I am a wicked or ignorant "cuss," but, on the other hand, am possessed of some pretty good all-America "stuff."

Strange how things go, ain't it. Well, I am building roads now instead of helping to build a spillway, so that the Kaiser can be dumped into hell, then I would like to blow the spillway up.

Moving On to Washington.

LOUIS N. GELBERT, Assistant to the President of the Interstate Cottonseed Crushers' Association, Memphis, Tenn.

Please change our address on your mailing list to read 607 Real Estate Trust Bldg., Washington, D. C., to take effect immediately. Our office here, including the publication office of the Cotton Oil Press, are being removed to Washington to enable us to co-operate more closely with the Food Administration and other departments of the Government. Further explanation of this notice will be found on the editorial page of the July issue of the Cotton Oil Press, which went into the mails on Saturday last.

A big by-product coke plant is reported under consideration for construction by the Bon Air (Tenn.) Coal and Iron Corporation, with offices at Nashville.

Florida's Increasing Contribution of Food Supplies to the Nation

GREAT FERTILITY OF RECLAIMED EVERGLADE LANDS—IDEAL CONDITIONS FOR SUGAR-CANE — LARGE SHIPMENTS OF VEGETABLES AND TRUCK MADE THE PRESENT SEASON—TYPICAL DEVELOPMENT WORK.

By J. H. REESE, West Palm Beach, Fla.

Since Governor Broward started the drainage of the Florida Everglades, 14 years ago, the evolution of skepticism to faith in the possibilities of this fertile section of country has been steadily going forward until there lingers no doubt concerning its productivity. There were many doubters who had to be shown before they believed, and even then there were some who predicted that the crops would go to waste because of lack of transportation facilities and the enormous cost of establishing them.

Like all big problems, it has taken time to work this one out, but this has been successfully done with respect to that section of country lying between West Palm Beach and Lake Okeechobee, which so far has proved to be the most productive and best protected portion of the area thus far reclaimed. Some 7000 acres have been in cultivation this season, and it is calculated that easily double this area will be cultivated next season. The crops have consisted mainly of cabbage, onions, potatoes, tomatoes, eggplant, peppers and the like. Staple crops are being experimented with on several large farms, like that of the Southern States Land & Timber Co. at Loxahatchee, where a scientific expert is in charge of an experiment farm of more than 500 acres. The variety of crops that is being tried out is almost as numerous as the agricultural products of the United States, for practically everything will grow in the Everglades that can be grown elsewhere, and in this fact lies the superior value of this territory, its unusual combination of soil and climate making a productive condition that hardly exists anywhere else.

A party of sugar growers from Louisiana recently visited the Everglades under the chaperonage of Jules M. Burguières, manager of the Southern States Company, and they were surprised to see sugar-cane that had passed through the recent severe winter without being injured by the cold. This condition was one which the Louisiana growers were wholly unprepared to believe. They had not thought that there was any section in the United States or north of Cuba where the cane stands from year to year untouched by frost. The visit of the Louisiana planters was significant of the early development of this section for sugar production.

"Within five years the Everglades will be producing sugar in large quantities," said Mr. Burguières, who is an experienced sugar man.

What the sugar planters have discovered by investigation, others specializing in various lines of agricultural development and production are destined to find out to their advantage, and it appears more conclusive

than ever that Governor Broward's prediction that the Everglades would become the garden spot of America is to be verified by time.

Already there are large operators in the Everglades. W. J. Conners (the famous "Fingy" Conners of Buffalo) is operating a farm of 5000 acres on the Palm Beach canal, upon which it is reported that his expenditures average \$1000 a day. While this figure may be slightly exaggerated, it can be imagined without difficulty that his expenses are heavy when it is considered that he is using the latest improved farm tractors and pulverizers, and is stocking his farm with the best of everything that goes into the making of modern agricultural equipment. One single item of expense is five pulverizers that cost \$6000 each, and recently he contracted for 1000 tons of screened limestone to sweeten the land and increase its fruitage elements. The land is largely humus, which makes the vine or stalk luxuriant, and it needs only lime to round out its productive strength.

Asked if Mr. Conners was pleased with his investment, his manager, H. V. Makely, said that his principal was the most enthusiastic Everglades advocate that he knew. His returns had been entirely satisfactory, said Mr. Makely, and he was determined to make his Everglades farm the best in the country. He didn't go into the business of farming as a pastime, but, like the shrewd and careful business man that he is, he expects profits from his operations and was sure that they would be even greater than he had expected.

Mr. Conners was one of the first to see that transportation was a prime need, and he provided for his own needs in this respect by purchasing the only boat line operating on the canal and leasing Canal Port, five miles from West Palm Beach, for a period of five years. At that time Canal Port was the only outlet with railroad connections, but since then the city of West Palm Beach has opened its stub canal terminals, and the accompanying illustration shows views taken at the terminals the first day it was open for shipping. Five thousand crates of vegetables were handled over the municipal dock that day, aggregating some 10 carloads. The city charges no dockage, but has a minimum rate of \$5 a day for loading cars, with an additional tariff of a cent a crate for cars loaded with more than 500 crates. At Canal Port, where Mr. Conners' boats dock, a charge of \$8 a car and a cent a crate wharfage is levied on shippers.

When Mr. Conners took over the Citizens' Boat Line he stated that he would do all in his power to accommodate other growers in the matter of transportation until they could make other arrangements, and the open-

ing of the city terminals has supplied the growers with the means for getting their produce to market.

Other boat lines have begun to ply the waters of the canal, and the municipal dock is proving a revenue producer for the city. But better than that, the building of the stub canal, which connects at a point some two miles from the city with the main canal, has provided the growers with the facilities that they needed and has led to the establishment of a ready market for the produce which they did not have previously. The next season will unquestionably witness an increase of the facilities, and growers will be able to sell all their produce and get cash for it at the docks.

A factor in handling the business for the growers is the Everglades Seed & Produce Co., which came to the rescue at a time when the growers were becoming discouraged and through its marketing connections has been instrumental in selling the Everglades output at prices which have been upon the whole highly satisfactory. The growers sustained losses on cabbage, onions and potatoes for a while, but they have recouped on tomatoes, eggplants and peppers.

The Florida East Coast Railroad constructed a spur track into the terminal yards, and is yet to construct a transfer shed, and probably next season a warehouse. The photograph was taken the first day, as stated, and the terminals were opened before the track work was completed, as will be seen by close scrutiny of the picture.

The State Drainage Commissioners have located their drainage headquarters at the terminals, which is official recognition that West Palm Beach is the gateway to the Everglades. The State has an indefinite lease on 250 feet of waterfront, and will construct shops, marine ways and quarters on the land controlled by them. The five slips that were opened have all been leased, W. J. Conners being one of the lessees, his facilities at Canal Port being inadequate to accommodate his large business. He will build a warehouse on the city slip, in which will be housed fertilizers, crate materials and all sorts of farm supplies.

There was some opposition in West Palm Beach to the proposition to bond the city to build the stub canal and terminals, but the instant success which followed the opening of the terminals has convinced all that it was probably the best investment the town ever made. The beginning, while modest in point of the money expended, has indicated the immense volume of business that will follow in a few years. To date the terminals and canal have cost a few hundred dollars less than \$30,000.

Federal Food Administrator Herbert Hoover has asked for and received the approximate cost of producing certain food crops in the Everglades, and avows that the figure is less by from \$1.50 to \$2 per ton than they can be grown anywhere else. This information is being used in connection with the establishment of dehydrating plants, with the likelihood that probably the first plant will be located in this vicinity. With the transportation problem solved, or in a fair way of solution, it begins to look as if Governor Broward's prophetic vision is to be more than realized. It may be that the Everglades will do much toward winning the war.

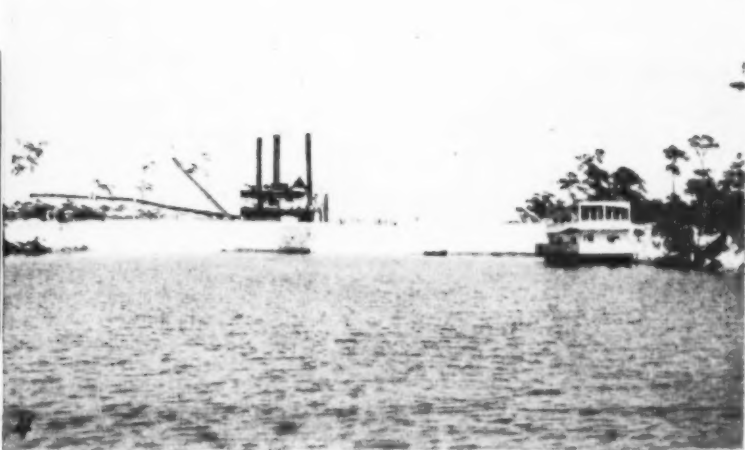


GENERAL VIEW CITY TERMINALS, STUB CANAL, WEST PALM BEACH, FLA. OPENING DAY, MAY 27, 1918.



OPENING CITY TERMINALS ON STUB CANAL, CONNECTING WEST PALM BEACH WITH EVERGLADES FARMS, MAY 27, 1918.

DEVELOPING FERTILE FARMS IN THE EVERGLADES OF FLORIDA.



1-Excavators at Work in Loxahatchee Drainage District. 2-View of Tamiami Trail. 3-A View of the St. Lucie Canal. 4-Dam on the St. Lucie Canal. 5-Dasheens at Fort Lauderdale on Japanese Farm. 6-Lettuce at Moorehaven. 7-Corn at Moorehaven. 8-Sugar Cane at Bowers.

Highway Materials and Railroad Freight Rates

Pursuant to the call issued by Mr. L. W. Page, Director of the Office of Public Roads, a meeting was held in Washington July 10, attended by the executive committee of the American Association of State Highway Officials, officers and directors of the Highway Industries Association and other interested parties.

The question of the advance in freight rates promulgated in Order No. 28 by the Director-General of Railroads was discussed, and a committee was appointed to draft a resolution asking for a reduction in the freight rates on road-building materials. This committee prepared a resolution, which was presented to the meeting and adopted.

The meeting instructed the committee which drafted the resolution to present it, with an appeal, to the committee appointed by the Director-General of Railroads to consider such matters, of which Mr. H. Walters is chairman. The resolution and appeal are as follows:

APPEAL TO THE DIRECTOR-GENERAL OF RAILROADS.

The subscribers to this document are a committee appointed to present for your consideration a resolution passed on July 10, 1918, at a conference of men representing, in various capacities, the road-building industry of the United States.

The preamble and resolution are as follows:

The executive committee of the American Association of Highway Officials and the directors of the Highway Industries Association, representing respectively all the State Highway Departments and National Association of Sand and Gravel Producers, National Slag Association, National Crushed Stone Association, National Paving Brick Manufacturers' Association, Portland Cement Association and Asphalt Block Manufacturers' Association, in conference represents:

1. The flat ton rates prescribed by the Director-General's Order No. 28, imposes upon certain commodities, to wit, cement, brick, slag, stone, sand and gravel, and other road materials, an undue and unjust proportion of the increased transportation cost;
2. That said order imposes unequal, unjust and inequitable freight charges upon all materials used for highway construction, and unless modified and reformed so as to make said rates both equal and just, will interfere with further road improvement throughout the entire country;
3. That it is an obligation of the Government to distribute the transportation tax so that it will bear equitably on commodities and localities;
4. That if a straight increase of 25 per cent in commodities generally be fair, it is unjust to select certain commodities and impose upon them increases ranging from 50 per cent, to 500 per cent.;

WHEREFORE, supplementing petitions already presented, we pray the Director-General of Railroads that General Order No. 28 be modified so as to apply a straight increase of not exceeding 25 per cent, on road-building material.

WE FURTHER PRAY THAT the carriers under the Director-General's control be authorized to refund on shipments moving subsequent to June 24, 1918, all charges collected in excess of 25 per cent, above the previously existing rates.

We respectfully call your attention to the prayer embodied in the resolution above set forth. It means that a vital necessity for relief exists, and that unless speedy relief be accorded great injury will result.

The advance on road-making material prescribed by General Order No. 28 is unprecedented. It represents so great a percentage of the cost of road work that it will seriously impede further highway construction, and will inure to the detriment of the public welfare, this in addition to the inequalities that Order No. 28 imposes.

The speedy granting of our prayer will ameliorate the existing deplorable condition, at least to a limited extent. The truth is that road-making materials are commodities so low-priced that the transportation charge is a vital factor in the cost of road building. Road-making material consists of cheap, heavy-loading commodities; the hauls are short. It follows that the transportation of road-making materials will yield a fair margin of profit on a lower basis of rates than will any other commodity transported by common carriers.

Furthermore, as a result of the increases promulgated by General Order No. 28, we call your attention to a previous resolution submitted by the Highway Industries Association, passed at Detroit, Mich., on June 11, 1918, and endorsed at the meeting held on July 10, 1918, a copy of which is hereto attached, in which it is stated that the contractors having had no warning could not insure themselves on pre-existing contracts against the increased cost resulting from the advance in freight rates. Even a 10 per cent, advance in transportation charge on road-building material imposed after the contract had been made will transmute a profit to a loss, and therefore

an advance of 25 per cent., a loss that will put many of them out of business.

We respectfully request prompt action on our petition.

American Association of State Highway Officials,
Paul D. Sargent, Acting Chairman.
A. D. Williams, Acting Secretary.

Highway Industries Association,
H. G. Shirley, Secretary.

Portland Cement Association,
A. N. Johnson, Chief Consulting Highway Engineer.

National Paving Brick Association,
W. P. Blair, Secretary.

National Crushed Stone Association,
A. P. Sandles, Secretary.

National Slag Association,
H. J. Love, Secretary.

National Association Sand and Gravel Producers,
E. G. Sutton, Secretary.

National Association Asphalt Block Manufacturers,
E. J. Morrison, President.

On July 11 the committee appeared before Mr. Walters and his associates and presented the appeal and resolution as given above. After quite a lengthy discussion Mr. Walters advised that the portion of the appeal asking relief for contractors who had entered into contracts prior to the promulgation of Order No. 28 could not be considered, and that it would be impossible for the Railroad Administration to give any relief to contractors who had contracts prior to advance in freight rates, and that no distinction could be made between contractors holding contracts executed prior to date of increase and those holding contracts executed after that date.

Therefore, if any relief is secured for contractors holding contracts prior to the date of the advance in rate, it will have to be through a reduction of the rate itself or through the State, county or municipal authorities.

Resolution adopted at a meeting called by the Highway Industries Association, held at the Detroit Athletic Club, Detroit, Mich., on Tuesday, June 11, 1918, for the purpose of considering the proposed advance in freight rates. State highway officials were present and took an active part in preparing this resolution.

WHEREAS, the highways of the country are recognized universally as arteries of commerce essential to the prosecution of the war; and

WHEREAS, the maintenance and construction of necessary highways require the successful continuance of existing contracting organizations and of producers of road-building materials, interests involving over one billion dollars in invested capital; and

WHEREAS, the freight rates on road-building materials promulgated by the Director-General of Railroads in General Order No. 28, dated May 25, 1918, is retroactive with reference to existing contracts for road work in all parts of the country; and

WHEREAS, such retroactive effect will result in serious financial loss, amounting to a very large percentage of the whole value of such contracts and entailing financial ruin to many contractors and producers of materials, without gain to the State; and

WHEREAS, existing State statutes prevent public officials from giving relief to contractors on public works who suffer loss by reason of these freight-rate increases;

THEREFORE, BE IT RESOLVED, That the Highway Industries Association urge upon the Director-General of Railroads that such increased freight rates be suspended, in so far as they apply to materials necessary for the execution of work under contracts in force prior to the promulgation of said Order No. 28.

Important Development of Transportation on the Warrior River Expected Now.

Birmingham, Ala., July 12—[Special.]—The Birmingham district is elated over the announcement that the Government Railroad Administration has taken over the transportation facilities of the lower Mississippi River and the Black Warrior River in Alabama. None of the equipment at present on the streams is to be taken over, which means there will be a complete outfit furnished.

M. J. Sanders of New Orleans, for years manager of the Leyland steamship lines and member of the Inland Waterways Commission, has been named director of the service to be put on the river. On the Black Warrior River it is expected that enough tugs, boats and barges, both of the tug kind as well as self-propelling, will be provided to take care of transportation for at least 1,000,000 tons of coal per annum, besides other heavy traffic, probably including steel shapes for the ship-

building plants at Mobile and New Orleans and other things.

The bunker coal demands at Mobile and New Orleans is quite an item, and if the river transportation can care for it, not less than 200,000 railroad cars will be available in the year for other coal and transportation.

The construction of a couple of smaller dams further up the river from Lock 17 will bring about development of coal lands now practically virgin in Walker and Winston counties and provide production for river transportation alone of more than another 1,000,000 tons.

It is estimated that the barges, tugs and boats can be provided within six months, and before the year is out there will be a considerable movement noted on the river.

United States Senator John H. Bankhead, Congressman Gray of the first and Congressman Oliver of the sixth district, together with Henry T. De Bardeleben, president of the De Bardeleben Coal Co., and others, H. E. McCormick, general manager of the Pratt Consolidated Company among them, worked hard in getting the Government to take over the transportation facilities on the river, and there is hope now that rail transportation from Ensley, Fairfield and the center of the Birmingham industrial district to the Warrior River will be provided by the time the barge line of the Government is in service. This means the possibility of steel shipments down the river, according to good authority.

SITE FOR BIG CELLULOSE PLANT.

Cumberland's \$10,000,000 Project Decided Upon.

The Cellulose Company of New York, financed by the Vickers Company and the Nobel Company of London, will build the \$10,000,000 Cumberland (Md.) cellulose manufacturing plant recently announced as to be built by the War Department. A 500-acre site on the Potomac River has been obtained for the plant proper, and additional acreage will be secured for the industrial city required for the thousands of men who will be employed. In addition to this, the Cumberland Development Co. will undertake accompanying developments to house construction and operating employees.

General contract for constructing the plant has been awarded to the George A. Fuller Company of New York, and Hector Roy will represent the Cellulose Company at Cumberland, with the entire enterprise under the general direction of the War Department. The main building will be one story high, and of fire-proof construction, which is expected to be completed within four months. Detailed plans and specifications are said to be ready for the contractor, the initial expenditure to be \$5,000,000 and this amount to be doubled immediately after the first unit begins production.

Until the war is won the cellulose products will be taken by the Government for airplanes, and after that the Cellulose Company intends manufacturing acids, drugs, dyes, etc., from cellulose and other materials.

\$5,000,000 BY-PRODUCT COKE OVENS.

Sloss-Sheffield Management Decides Upon Big Plant for Birmingham District.

An investment of \$5,000,000 will be required for a by-product coke plant which the Sloss-Sheffield Steel & Iron Co., J. W. McQueen, president, Birmingham, Ala., will build near Birmingham. It will provide for 120 Semet-Solvay ovens for the manufacture of toluol, benzol, sulphate of ammonia and other chemicals for the Government, the War Department having contracted for the output. The chemicals will be supplied for the munitions which will be used in winning the war, the coke will be consumed in the seven Sloss-Sheffield iron furnaces and the gas will probably be purchased by the Birmingham Gas Co.

The plant site has not been selected, but several tracts of land are under consideration and preparations are progressing for beginning the necessary construction. The Government will assist in the building of the plant by ensuring the materials and their transportation to the site, but the Sloss-Sheffield corporation will furnish the money for building and equipping the plant. Within 12 months the ovens are expected to be ready for production.

The plant will be a duplicate of that which the Tennessee Coal, Iron & Railroad Co. is now building at Fairfield.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

Railroad Agricultural Development Work by Railroad Administration.

Washington, D. C., July 16—[Special.]—The appointment of J. L. Edwards of Atlanta, Ga., as manager of the newly-established Agricultural Section of the Division of Traffic of the Federal Railway Administration contains its own assurance of the continuance of an important branch of work conducted by the railroads while they were still under private control.

Mr. Edwards, who was formerly traffic manager of the Atlanta, Birmingham & Atlantic Railway, has just arrived in Washington for the purpose of assuming the duties of his position. His appointment was announced by Edward Chambers, director of the Traffic Division, under date of July 10, as follows:

"The Agricultural Section of the Division of Traffic is hereby created and Mr. J. L. Edwards is appointed manager, with office in the Interstate Commerce Building, Washington, D. C.

"The Agricultural Section will give its attention to the transportation needs of agricultural interests and their encouragement."

In carrying out the general purposes of his appointment Mr. Edwards said today that there would be close co-operation between his office and the Agricultural Department, the Food Administration and the Traffic Division of the Railway Administration, of which last his office is a part.

Just prior to Mr. Edwards' arrival in Washington Director Chambers was called to the Pacific coast on business, which has had the effect of delaying the formulation of definite lines of action. In view of this, Mr. Edwards was reluctant to go into particulars at this time. Upon the return of Mr. Chambers to Washington, which will be about the first of August, many details of the new work will be taken up.

It is understood, however, that the stimulation of production along agricultural lines will form an essential and very important part of the work to be carried on by the new division. This will apply particularly to a movement for an increased acreage in desirable crops, with especial reference to the South. As the railroads still have the representatives who formerly were engaged in the publicity work which was intimately tied up with just such activities, the presumption is that similar relations will continue, although, in the absence of Mr. Chambers, Mr. Edwards preferred not to go into details on this point.

"You may say in general, however," said Mr. Edwards to the MANUFACTURERS RECORD correspondent, "that there will be done on all of the railroads a class of development work which was formerly carried on by most of them, the only difference in this respect being in the thorough unification and co-ordination of the efforts."

"The duties prescribed for the Agricultural Section," Mr. Edwards continued, "are capable of a very wide application. As I have already indicated, they involve larger production and better production methods. There will also be many questions of transportation methods, which will be taken up with traffic managers of the various roads through Director Chambers' office. These naturally will go into the methods of handling the products of the farmers, which, in turn, will involve a consideration of improvements in packages and containers for perishable and other products, to insure economical transportation, reduction of deterioration in transit, the arrival of the goods in good condition and better prices."

Higher Pay for Express Employees.

Expressmen will be put on a higher wage scale, according to an announcement by George C. Taylor, president of the American Railway Express Co., which is now operating the entire express business on the railroads of the United States.

"The increase in express rates recently granted by the Interstate Commerce Commission," he said, "makes it possible to immediately revise the wage schedules of the American Railway Express Co. The chief operating officials will begin immediately a readjustment of the wage schedules of the larger number of express employees throughout the entire country. The new com-

pany intends to utilize substantially the entire revenue accruing from the increased rates in an advance in wages, and it is hoped that the entire question can be disposed of within 30 days. However, employees will not suffer by delay, inasmuch as all increases announced will be made to take effect from July 1. None of this money will be used to increase the salaries of the higher-paid men or the officials of the company. The distribution will be upon the basis of the greatest good to the largest number, and it is hoped that the use of the money exclusively to increase the salaries of express workers will encourage them to do everything possible to insure an improved service to the public."

All Freight Records Exceeded on the Pennsylvania.

The Pennsylvania Railroad reports that freight traffic through Columbia, Pa., during June far exceeded all records for a similar time. Practically all of the through east and west bound freight is sent via Columbia to leave the shorter main line free for passenger traffic. During the month the total number of cars passing this point was 250,322, enough to make one train 2000 miles long, or to solidly fill up a double-track line from New York to St. Louis. There was an average of 70 miles of freight cars passing each day, or 8344 cars, but the largest movement for a single day was on June 20, when 9531 cars went through. All records were broken not only for this point, but for all points on the system. The freight thus moved for June exceeded 6,000,000 tons, or more than 1200 steamship cargoes of 5000 tons each, so that 40 steamship loads passed through every day. But this was not all that might have been carried, because four out of every five cars hauled westward were empty, although only four out of every hundred hauled eastward were empty, the large percentage of unused cars on westbound trains being due to the large decrease in imports from foreign countries on account of the war.

Contract With the Railroads Still Pending.

After the meeting of railroad executives was held in New York last Friday to consider the proposed contract between the United States Railroad Administration and the railroads—which, by the way, was a gathering held behind closed doors—it developed that the terms of the agreement were acceptable in the main to some of the railroad officials, but they were not acceptable to the representatives of the National Association of Owners of Railroad Securities, who were represented at the meeting by S. Davies Warfield of Baltimore, president of the association, and a number of other gentlemen. It was therefore decided to present amendments to the draft of the proposed contract to Director-General McAdoo to secure the modifications desired to protect security-owners in their property rights, and it is understood that steps will be taken immediately to adjust the matter.

Official Changes.

J. B. Munson, vice-president of the Georgia Southern & Florida Railway, has been elected vice-president of the Cincinnati, New Orleans & Texas Pacific Railway. He will have his headquarters at Cincinnati. He has been at Macon for several years.

C. H. Hix has been appointed Federal manager of the Norfolk & Portsmouth Belt Line, with authority also over other Hampton Roads railroad terminals.

W. E. Shipley has been appointed general agent of the Southern Railway at Memphis, Tenn., succeeding R. B. Pegram, transferred to the purchasing department at Washington, D. C.

C. K. Dunlap, formerly traffic manager, has been elected president of the Southern Pacific Lines in Texas to succeed W. B. Scott, recently appointed to be Federal manager.

Short Line Resolution Vetoed.

President Wilson, who recently announced that the Federal Railroad Administration would not retain under its control about 1300 short line roads, has vetoed the resolution adopted by Congress to extend the time for the Railroad Administration to make its decision in the matter from July 1 to January 1 next. A report from Washington says that the veto was expected because of a provision added to the bill forbidding the relinquishment of any road where a connecting or a competing line was retained, this being construed as

meaning that the Government would be obliged to resume control of a large number of short lines which had been relinquished. The delay occurring in Congress in connection with the passage of the resolution was responsible, it seems, for the action of the Railroad Administration in at once turning the short line roads mentioned back to their owners, because the time originally fixed expired July 1. Only a few hours after the action was taken the resolution was adopted.

Broad Interurban Railway Plan.

A bill has passed both houses of the Louisiana Legislature authorizing cities, towns and villages in the State to co-operate with each other for the purpose of building, owning and operating electric interurban railways and also to build the necessary electric plants to run them. The purpose, it is said, is to give opportunity to furnish cheap and fast transportation facilities all over Louisiana. The act is like one passed in Mississippi last March, and there is consequently talk of an interstate electric system finally resulting from the legislation.

Panama Engines for Muscle Shoals Work.

A report from Mobile says that machinists at the Whistler shops of the Mobile & Ohio Railroad are overhauling and putting together some locomotives which were used in the building of the Panama Canal, so that they can be employed in connection with the construction of the big nitrate plant for the Government at Muscle Shoals, Ala.

Cotton Price Based on Scientific Deductions Will Be Recommended.

Austin, Tex., July 11—[Special.]—The following is given out by W. B. Yeary, cotton expert of the State agricultural department:

The Cotton States Advisory Marketing Board, composed of the commissioners of agriculture, presidents of farmers' unions and heads of market bureaus of the State agricultural departments of the cotton States, are now receiving reports from farmers on the labor and other costs of producing the 1918 cotton crop. This work is preparatory to announcing the price at which this crop should be sold, as soon as the United States Government estimate of the crop is given out the first of August.

The recommendation by the above-named organization of the price for which the farmers shall be requested to hold cotton will be based upon the Government estimate of the crop and the cost as reported by the farmers. It is hoped by the Cotton States Advisory Marketing Board that farmers picking cotton prior to the forthcoming report will hold it pending such report.

As this work is being done by State authority of the various Southern States, based upon cost reports from the cotton fields and crop estimate by the United States Government, it is hoped that all interested in a fair price for cotton based upon business principles will do all they can to uphold the price to be recommended.

Wheat Raising to Be Increased in Mississippi.

Jackson, Miss., July 12—[Special.]—Mississippi's wheat-growing campaign has reached State-wide proportions, and even the Delta, regarded for years as distinctly a cotton-growing section, is going in strong for the grain crops. A flour mill will be built shortly at Clarksdale, in Coahoma county, which is in the heart of the Delta. Farmers of the county have pledged themselves to plant a certain percentage of their acreage to wheat this fall. The mill will also make mixed feeds, and will be able to run the year 'round.

Jackson expects to have a flour mill by fall, with ample wheat planted in Hinds and Rankin counties to keep it running for several months. A small mill at Canton, in Madison county, has doubled its capacity and is busy turning out flour for home consumption.

The pinch of necessity was needed to help along the preaching of county demonstration agents, who are devoting most of their efforts at present to increasing wheat production. When farmers found it impossible to get wheat flour at any price they began to think of the possibilities of producing it at home, with a consequent arousing of interest in the drive. By next year many communities will be self-sustaining as to wheat flour, just as they are already as to meats and vegetables.

Good Roads and Streets

Bonds Voted.

Eastland, Tex.—Eastland County Commissioners voted \$50,000 bonds for building highway.

Lebanon, Mo.—Laclede county votes August 9 on \$450,000 bonds for building highways.

McKinney, Tex.—Collin county voted \$50,000 bonds for highway construction.

Miami, Fla.—City voted \$40,000 bonds for street paving.

Bonds to Be Voted.

Columbus, Miss.—Lowndes county votes July 30 on \$80,000 bonds for road construction in three road districts.

Hawessee, Ga.—Townsend county will vote on \$30,000 bonds and will have available \$30,000 additional for road construction.

Contracts Awarded.

Dallas, Tex.—City awarded \$32,000 contract for bituminous street paving.

Galveston, Tex.—City awarded contract for 43,000 square yards of asphalt paving.

Independence, Mo.—Jackson county awarded \$15,639 contract for grading and macadamizing on 3½ miles highway.

Paris Island, S. C.—Government awarded \$1,666,630 contract for constructing roads, sidewalks, sewers, water system, sea wall, etc., at marine barracks.

Richmond, Va.—City awarded \$27,785 contract for street improvements.

Sedalia, Mo.—Pettis county awarded contract for 7¼ miles of bituminous macadam roads.

St. Louis, Mo.—City awarded \$12,996 contract for street paving.

Contracts to Be Awarded.

Atlanta, Ga.—City has \$50,000 available for street paving.

Charleston, W. Va.—City receives proposals until July 19 for 6300 square yards of paving with 3800 ft. of curb and gutter.

Clayton, Mo.—St. Louis county and State of Missouri will repair highways at a cost of \$75,000.

Jackboro, Tenn.—Campbell county invites bids until August 6 for constructing 15-mile road in connection with issuance of \$100,000 bonds for building highways.

Magnolia, Ark.—Columbia county invites proposals until July 21 for constructing 13½-mile gravel highway.

Meridian, Miss.—Lauderdale county will build 15-mile highway, having \$40,000 available for this improvement.

Moulton, Ala.—Lawrence county has \$30,000 available for building highways.

Moundsville, W. Va.—Marshall county has \$50,000 available for building 1½ miles of road of brick and concrete construction.

San Antonio, Tex.—Bexar county will improve road at a cost of \$10,000.

Waco, Tex.—McLennan county will construct 3-mile road at a cost of \$25,000.

Mississippi Wood Products Plant.

Production will begin soon at the plant which the Lamb-Fish Lumber Co., Charleston, Miss., has been building in accordance with announcements last April. It was then stated that the construction contract for the plant (reported as a \$1,000,000 enterprise) had been awarded to the Unit Construction Co. of St. Louis.

This week the Mississippi Wood Products Co. was incorporated with \$500,000 capital by W. B. Burke and P. H. Starks of Charleston and G. E. Lamb of Clinton, Iowa, to acquire and operate the new factory. The output will be wood alcohol and acetone manufactured from the waste of the Lamb-Fish lumber mills.

To Mine Louisiana Salt.

Preparations are being made for the development of the Lafayette (La.) salt property of the Benners Salt Co., H. A. Benners of New Orleans, vice-president, organized last year. An 80-acre site will be developed, and the company now wants estimates on the following: Mining equipment, electrical machinery, crushers, mills, screens, crude-oil engines.

Where All Good Americans Stand.

CHAS. E. SCIPLE, Sciple Sons, Builders' Supplies, Atlanta, Ga.—It gives us pleasure to enclose our check for \$5 to cover our subscription to the MANUFACTURERS RECORD for another year.

It is a useless question to ask any good American whether or not the work that you have been trying to accomplish meets with his or their approval, but since you have asked the question, we will do you the courtesy to tell you "Yes," and that your articles should have been copied by the newspapers throughout this great American country to have educated the public to the damnable, barbarous conditions created and being enacted by the Germans.

TEXTILES

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

Silk Industry for Texas.

Production of raw silk, silk spinning and silk hosiery knitting comprise the plans of the Texas Silk Manufacturing & Plantation Co., which has been incorporated with William J. Frees of Austin, Tex., as president. At Alta Loma and at Aldine, Tex., the company has two 250-acre tracts of land, upon which will be set 80,000 mulberry trees and a silk cocoonery will be established at Alta Loma.

The company plans that its silkworms feeding upon the 80,000 mulberry trees produce material for seven tons of silk in four years, which will be spun and then knit into hosiery.

The Marcella Mill.

Thomas Raby, Jr., A. C. Havens and H. A. White, Eufaula, Ala., have incorporated the Marcella Cotton Manufacturing Co. with \$100,000 capital.

Textile Notes.

An addition will be built and equipped with 4000 spindles by the Mountain View Mill, Kings Mountain, N. C.

O. F. Lackey, J. S. Carpenter, W. P. Beal and others have incorporated the Midway Hosiery Mills, Lincoln, N. C., with \$40,000 capital.

The Plowman Mill, Lawrenceville, Ga., has been organized with \$500,000 capital and succeeds the Lawrenceville Mill. Its equipment includes 4200 mule spindles and 448 ring spindles.

An increase of capital from \$10,000 to \$50,000 has been announced for the Richmond Hosiery Mills, Roswell, Ga. This capital increase will be followed by the installation of additional new machinery enabling the company to meet the demands of a large army contract it has received for woolen hose.

W. B. Davis, Chattanooga, Tenn., controlling several knit hosiery mills, will establish a mill with daily capacity of 500 dozen pairs worsted hose. He has secured a building and ordered an equipment of machinery. This plant is for the purpose of furnishing 500 dozen pairs of worsted hose for which Mr. Davis has contract from the Government.

Production, Distribution and Control of Sulphur Materials.

Because of the shortage of pyrites due to the curtailment of Spanish ore, made necessary for the conservation of shipping, the War Industries Board has for months past been giving serious consideration to the question as to the best method of dealing with the important subject of sulphur materials.

The Chemical Alliance, Inc., being a body representing the entire fertilizer and chemical industries and very closely associated in an advisory capacity with all Government departments interested in the promotion of chemical manufacture and agriculture, was asked by the War Industries Board to furnish a concrete plan for handling sulphur materials. The steps in this matter and the final outcome is set forth at length in the Alliance Special Bulletin dated the 8th of July and recently sent to all producers and consumers.

It will be noted that the War Industries Board has taken full control of all sulphur materials by the following resolution approved by the President:

"Due to the increased demand by the Government for sulphur in the manufacture of explosives and for other purposes and to the increasing burdens on the rail and water transportation systems control of the production and distribution of sulphur materials has become necessary to insure, as far as possible, an adequate supply to the Government and an equitable distribution of the surplus to other users; therefore, be it

"Resolved, That the War Industries Board will assume control of sulphur materials, and hereby authorizes Mr. William G. Woolfolk, Commodity Chief in

Charge of Pyrites and Sulphur, to act for the board in controlling the production and distribution of sulphur materials, availing of such voluntary assistance as he may see fit of individuals or committees representing the producers and users of sulphur materials, and in case any producer or consumer declines to abide by the decision of the War Industries Board, commanding orders will be issued where necessary."

The Chemical Alliance, Inc., has been selected by Mr. Woolfolk to assist him in this work through its committee on production, distribution and control of sulphur materials, composed of A. D. Ledoux (chairman), W. D. Huntington and C. G. Wilson.

It is the duty of the committee to obtain from producers and consumers such information as thought necessary to enable satisfactory control, which extends to all imported as well as domestic sulphur materials. The committee's work will be materially lightened if all producers and consumers will furnish the information which may be asked for without loss of time and meet the situation in the same patriotic manner as they are now doing in other matters.

Inquiries including the matter of sale or purchase of sulphur materials should be addressed to the Committee on Production, Distribution, Control of Sulphur Materials of the Chemical Alliance, Inc., at either Room 135, Interior Building, Washington, D. C., or 15 William street, New York.

Cheat River Power Plant May Now Be Completed.

Pittsburgh, Pa., July 12.—[Special.]—The Cheat River power project, started by the Kuhn banking interests in 1911, of which great things were expected, but which was halted by financial troubles, is now understood to be under close investigation by Government experts with the idea of completing the power plant. With the great Government project at Neville Island, and because of the large amount of work being done for the Government here, the question came up as to whether Pittsburgh would be able to meet the demand for adequate power supply.

Electrical engineers have stated within the past few days that by the completion of the Cheat River plant there would be ample power always at hand in the Pittsburgh district and no plant would be compelled to shut down hours at a time, as was the case last winter, for lack of power.

With the Cheat River dam in operation, there would be furnished 50,000 horse-power, meaning the saving of 120,000 tons of coal per year. This is most advantageous when the problem of securing an adequate supply of coal is generally admitted to be serious.

The plant is located near Cheat Haven, Pa., at the Pennsylvania-West Virginia State line. It is figured for an 86-foot head of water, and was built to accommodate four generator units of 12,500 horse-power each, which will produce annually 120,000,000 kilowatt hours of electricity, the equivalent of 120,000 tons of coal.

The power to be developed in this plant is one-third as much as the mammoth Brunots Island plant, and is equivalent to all the power generated in all of the four power plants operating the Pittsburgh traction system before the Brunots Island plant was built.

The contract for the Cheat River plant, which amounted to \$4,000,000, was placed with the T. A. Gillespie Company of Pittsburgh, Pa., and when work was stopped the Gillespie Company took a lien on the property. Ownership at present is vested in the West Penn Power Co., which has satisfied all liens against the property. The power company has high-tension lines for the transmission of the current built right up to the plant, and the distribution of the power would be immediate after the plant was completed and put in operation.

The dam has a total length of 1000 feet, the spillway section being 624 feet in length. It is estimated that the operation of this plant during low-water periods will double the flow in the Monongahela River. This dam is one of a series of six that were planned by the Kuhn interests on the Cheat River and its tributaries. The power-house is approximately 250 feet long and 100 feet wide, and is erected as a portion of that dam structure.

The length of the reservoir formed by this dam is about 11 miles, and its available storage capacity 40,000 acre feet. A branch from the Baltimore & Ohio Railroad has been built from Cheat Haven to the power plant site.

Construction Department

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

AIRPLANE PLANTS, STATIONS, ETC

Fla., Key West.—Hangar, etc.—Bureau of Yards and Docks, Navy Dept., Washington, D. C. let contract South Florida Construction Co., Key West, at \$77,000 to construct timber seaplane hangar, platform bench and landing pier. (Lately noted.)

Ky., Louisville.—Airplane Parts.—Ohio Falls Dye & Finishing Co. will build factory for airplane parts; 160x60 ft.; 1 story; Sanford Vaughn, Gen. Contr.; D. X. Murphy & Bros., Architects; all of Louisville.

Md., Aberdeen.—Aviation Field.—War Dept. will expend \$1,000,000 to establish aviation field; aviator barracks, hangars, machine repair shops, etc.; let general construction contract to Maryland Dredging & Contracting Co., Fidelity Bldg., Baltimore.

Va., Richmond.—Hangar.—War Dept. let contract J. T. Wilson Co., Richmond, to erect building for balloons for Signal Corps; cost \$42,000.

BRIDGES, CULVERTS, VIADUCTS

Ala., Opelika.—State Highway Dept., L. B. Connerse, Asst. Engr., Montgomery, let contract Stanley & Singer Construction Co. of Lafayette, Ala., at \$5276 to construct 60-ft. concrete bridge across Opelika Creek on State Trunk Road No. 13, between Auburn and Opelika, Lee County. (Lately noted in-coming bids.)

Ark., Fort Smith.—Fort Smith-Van Buren Bridge Comsn. let contract Peter McGee & Co., Kansas City, Mo., at \$7391, to repair span in Fort Smith-Van Buren bridge damaged by fire; concrete floor.

Ark., Magnolia.—Comms. Magnolia-McNell Road Improvement Dist. No. 1, Columbia County, ask bids until July 31 on 1000 ft. pipe culvert in connection with construction 13½ mi. gravel road. See Road and Street Work. (See Machinery Wanted—Road Construction.)

Fla., Miami.—City voted \$30,000 bonds to construct bridge over Miami River at Avenue D and \$10,000 to build bridge over Miami River at 12th St. Address City Engr. Murray. (See Sewer Construction.)

Ga., Oglethorpe.—Macon County Comms., A. H. Perry, Clerk, ask bids until August 6 to construct bridge across Flint River, between Oglethorpe and Montezuma, on Dixie Highway; bids received on either or both contracts; Contract No. 1 consists of 3 steel 120-ft. spans, 630 cu. yds. reinforced concrete, 3000 lin. ft. wood piling; Contract 2, 1540 lin. ft. concrete approaches, 2629 cu. yds. reinforced concrete; 467,318 lbs. steel, 4000 lin. ft. wood piles; Engrs., Garrett & Slack, Montgomery, Ala.; estimated cost \$122,000. Lately noted. (See Machinery Wanted—Bridge Construction.)

Md., Curtis Bay.—Baltimore & Ohio R. R., B. A. Lane, Chief Engr., Baltimore, Md., will extend bridge carrying Curtis Bay branch railroad over main line; plans erection of two 85-ft. steel spans.

Md., Denton.—Caroline County Comms. will construct reinforced concrete bridge over Choptank River on road leading from Goldsboro to Delaware State line, known as Sandy Island Bridge; span 222 ft.; width of driveway 20 ft.; total yardage in bridge 74 cu. yds.; bids until July 23; Harry Waldorf, Roads Engr. (See Machinery Wanted—Bridge Construction.)

Mo., St. Joseph.—Buchanan County Comms. let contract Skilbred Construction Co. and F. Clark, both of St. Joseph, to construct 10 reinforced concrete culverts,

and Topeka Bridge & Iron Co., Topeka, Kans., 1 reinforced concrete culvert; total cost, \$49,458.

N. C., Scotland Neck.—Halifax County Comms., Halifax, N. C., contemplate erection of bridge across Roanoke River; approved by State Highway Comsn.; Federal-aid Fund to supply \$15,000 of cost.

N. C., Williamston.—Martin County Commissioners contemplate erection of bridge across Roanoke River; cost at least \$100,000; State Highway Comsn. approve construction; Federal-aid Funds to supply \$30,000 of cost.

Okla., Newcastle.—Oklahoma & Newcastle Bridge Co. let contract Olson-Magee Co., Reliance Bldg., Kansas City, Mo., at \$202,830 to construct bridge over South Canadian River; reinforced concrete arch; length 1966 ft.; 20-ft. roadway; Max Cunningham, State Engr., Oklahoma City.

Tex., Colorado.—Mitchell County Comms. let contract S. E. Brown of Loraline, Tex., at \$20,000 for concrete work on Highway No. 1, including culverts, dips, etc.

CANNING AND PACKING PLANTS

Fla., Chipley.—Chipley Packing Co., John B. Glen, Jr., Secy.-Treas., advises Manufacturers Record further, relative to lately-noted building: Erect 2-story addition 40x60 ft. for cold-storage rooms; brick walls; floors and roof of reinforced cement; cost \$15,000; with addition, plant to have daily capacity 125 to 150 hogs; additional cold-storage capacity 300,000 to 400,000 lbs.

Fla., Fort Myers.—Stripes Citrus Packing Co. chartered; capital \$20,000; A. L. White, Pres.; F. W. Perry, V.-P.; G. A. Arndt, Secy.

Fla., Lake Wales.—Lake Wales Novelty Works organized; W. A. Varn, Pres.; T. J. Parker, V.-P.; C. C. Thulberry, Secy.; erect 100x120-ft. semi-fireproof \$17,000 building; open bids Nov. 1; J. F. Townsend, Contr., Lake Wales; plans by J. F. Townsend, with T. M. Bryan, associate; install citrus-packing machinery, cost \$8000.

Fla., Shiloh.—Shiloh Packing Co., capital \$15,000, ineptd.; F. P. Zly, Pres.; J. A. Taylor, V.-P.; F. A. Kuebler, Secy.-Treas.

Md., Baltimore.—Roberts Bros., 427 E. Lexington St., will erect addition; 1-story; 86x62 ft.; slag roof; let contract P. J. Cushman, 217-219 St. Paul St.; plans by J. Franklin Nolker, 20 Professional Bldg.; both of Baltimore.

Va., Mill Creek.—Mill Creek Packing Co., capital \$25,000, ineptd.; R. O. Harding, Pres., Thers, Va.; A. J. Brent, Secy., Richmond, Va.

CLAYWORKING PLANTS

La., New Orleans.—Tile.—J. Wilfred Galdry, 230 Calhoun St., contemplates installing machinery to manufacture earthen or clay tiles. (See Machinery Wanted—Clayworking Machinery.)

Tex., Elgin.—Bricks and Tile.—United Brick & Tile Corp., capital \$175,000, chartered by S. F. Kirksey, Jr., S. F. Kirksey, Sr. and H. R. Burt.

COAL MINES AND COKE OVENS

Ala., Birmingham.—Gloss-Sheffield Steel & Iron Co., J. W. McQueen, Pres., will build \$5,000,000 by-product coke plant; 120 ovens of Senet-Solvay type; manufacture toluol, benzol, sulphate of ammonia, etc.; use coke output for iron furnaces; product contracted for by War Dept.; plant location in

Birmingham district, but site not determined; completion within 12 months. (Lately reported considering, with Government officials, plan for \$2,000,000 coke ovens.)

Ala., Carbon Hill.—Emergency Coal Co. ineptd. by W. S. Thornton and others; capital \$25,000.

Ala., Adger.—Eagle Coal Co., 407 American Trust Bldg., Birmingham, Ala., organized; J. C. Mahen, Jr., Pres.; R. J. Fulbright, V.-P., both of Birmingham; develop 120 acres; daily output, 200 to 250 tons; install boilers, engines, wire rope, etc.; no supplies needed at present. (Noted in June.)

Ala., Dora.—Liberty Coal Mining Co. chartered with \$40,000 capital by J. R. Baird and others.

Ky., Hanson.—Carl Ashby is reported to develop coal mines.

Ky., Madisonville.—Richland Coal Co., ineptd.; Tom Logan, Pres.; John G. Salmon, V.-P.; Clint M. Logan, Secy.-Treas. and Mgr.; develop small acreage; wagon trade; no machinery.

Ky., Martin County.—Dempsey Coal Co. ineptd. by Thos. A. Shewey and others, all of Armor, W. Va.; capital \$50,000.

Md., Sparrows Point.—Bethlehem Steel Corp. will build additional coke ovens in connection with \$50,000,000 expenditure for additional iron furnaces, steel plate mills, etc. (See Iron and Steel Plants.)

Tenn., Bon Air.—Bon Air Coal & Iron Corp., W. J. Cummins, V.-P. and Mgr., Stahlman Bldg., Nashville, is reported considering construction of big by-product coke plant.

Va., Bristol.—Floyd Elkhorn Consolidated Collieries advises Manufacturers Record: Organized to acquire properties of Floyd-Elkhorn Coal Corp., Drift Coal Co. and others; plans not fully matured; contemplates expending \$150,000 on installation power house, increasing mining equipment, adding mine cars and machines, building additional houses, locomotives, etc. (Lately noted ineptd., S. R. Jennings, Pres.; C. H. Anderson, Secy., both of Johnson City, Tenn.)

W. Va., Boone County.—Hopkins Fork Coal Co. organized; lease 2500 acres on Big Coal River, Boone County; has no definite development plans. (Lately noted ineptd., capital \$80,000, by Quin Morton, Gen. Mgr. of Imperial Coal Sales Co., Charleston, W. Va., and others.)

W. Va., Charleston.—Harrison Development Co., capital \$25,000, ineptd. by Chas. B. Goodwin, J. H. Britton, V. T. Harrison and others.

W. Va., Charleston.—American Eagle Colliery Co. ineptd. by Geo. R. Couch, V. L. Black, L. G. Summerfield and others; capital \$600,000.

W. Va., Iyer.—Bens Run Coal Co., capital \$50,000, ineptd. by J. E. McDowell, C. W. Karns, J. P. Gates and others.

W. Va., Piedmont.—Frederick Coal Co., capital \$10,000, ineptd. by Fred J. Fredlock, Jessie R. Fredlock, Robt. McV. Drame and others.

W. Va., Sullivan.—Sullivan Coal & Coke Co. is reported as contemplating doubling output, increasing annual capacity from 500,000 to 1,000,000 tons.

W. Va., Webb.—Marcum Coal Co. is reported as contemplating improvements.

W. Va., Welch.—Tacoma Collieries Co. ineptd. by W. W. Whyte and others; capital \$50,000.

COTTON COMPRESSES AND GINS

Ark., Chicot.—Chicot Gin & Milling Co. chartered with \$10,000 capital by Wm. A. Craig and others.

Tex., Rio Hondo.—Farmers' Ginning Co. organized; H. G. Saffer, Pres.; A. J. Carpenter, V.-P.; H. L. Goode, Secy.-Mgr.; erect 20x76-ft. brick building. (In June, noted ineptd., \$15,000 capital.)

COTTONSEED-OIL MILLS

Ga., Hogansville.—West Georgia Oil Mill, capital \$50,000, ineptd. by H. H. Ware and others.

Tex., Corpus Christi.—Corpus Christi Cotton Oil Co. increased capital from \$80,000 to \$144,000.

DRAINAGE SYSTEM

Fla., Bradentown.—Manatee County will construct Pearce Saw-Grass and Oneco drains and laterals; County Comms., Wm. M. Taylor, Clerk, receive bids until August 5; bids for Oneco drain lately noted. (See Machinery Wanted—Drainage.)

ELECTRIC PLANTS

D. C., Washington.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., let contract Gillis & Geoghegan, 537 W. Broadway, New York, at \$41,000 to erect power plant.

Fla., Oldsmar.—Oldsmar Electric & Ice Co. chartered; capital \$10,000; Jacob Bornstein, Pres.

Fla., Jacksonville.—War Dept. let contract W. P. Richardson of Jacksonville to construct electric light system in connection with development of city for ship builders. (See Buildings, Contracts Awarded, Government and State.)

Ga., Atlanta.—Warford Shoals Light & Power Co. will issue \$50,000 bonds.

Ga., Augusta.—City will install transformer; cost \$6575; has let contract.

Ga., Greensboro.—City contemplates improvements to electric-light plant and waterworks. Address The Mayor.

Ga., Southwest Lagrange, P. O. at Lagrange.—City, C. W. Coleman, Mayor, will expend \$25,000 to purchase lines already installed; G. H. Sargent, City Engr. (Lately noted to vote July 24 on \$25,000 bonds for electric-light system.)

Mo., Bevier.—City is reported as considering installation of electric generating plant. Address The Mayor.

Mo., Springfield.—Springfield Gas & Electric Co. will erect power house; purchased and will install 10,000-H. P. steam turbine and other equipment.

Mo., Jefferson City.—Hays Wood Products Co. contemplates erecting power house costing \$20,000 to supply electricity for lighting and heating its factory.

Mo., St. Joseph.—St. Joseph Railway, Light, Heat & Power Co. will erect electric sub-station on Felix St., between Second and Main Sts.; cost \$4000.

Okla., Oklahoma City.—Oklahoma Gas & Electric Co., Insurance Bldg., is reported to have let contract G. J. Stocker & Co., 841 Louis, Mo., for cooling tower improvements; include concrete walls with wood towers 72 ft. high, capacity 10,000,000 gals.

S. C., Paris Island.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., let contract John Griffiths & Son Co., 112 W. Adams St., Chicago, at \$1,665,630 to construct electric system, etc., at marine barracks. (See Road and Street Work.)

Tenn., Coal Creek.—Producers Power, Coal & Ice Co., capital \$25,000, ineptd. by E. M. Boasley, Horace Presley, Chas. E. Stapleton and others.

Tex., Chandler.—E. L. Green has let contract for electric plant; cost \$2000. (Lately noted.)

FLOUR, FEED AND MEAL MILLS

Ala., Mobile.—Coosa Milling Co. increased capital from \$50,000 to \$100,000.

Ark., Camden.—Camden Milling Co., W. D. Graham, Prop., will install roller flour mill.

Ga., Jackson.—R. A. Franklin will rebuild grist mill reported burned.

Ky., Frankfort.—Franklin Grain Products Co. organized; Geo. M. Allen, Pres., 69 Broadway, New York; Geo. P. Berry, V.-P.; E. A. Hoffman, Secy.-Mgr., both of Frankfort; has buildings; install driers, evaporators, mills, cookers; cost of machinery, \$75,000; products, maltose in solid and syrup form, corn oil, cattle feed; Singer-Perlestein Co., Constr. Engr., Webster Bldg., Chicago. Lately noted ineptd., capital \$100,000. (See Miscellaneous Factories. (See Machinery Wanted—Cookers and Driers.)

Miss., Clarksdale.—Coahoma County Wheat Growers' Assn. contemplates establishing flour mill.

N. C., Laurinburg.—Upchurch & Cameron of Raeford, N. C., will erect 25-bbl. daily capacity flour mill and corn mill.

Tex., Wolfe City.—Kimball Milling Co. increased capital from \$100,000 to \$140,000.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Va., Weyers Cave.—Farmers' Milling Co., Inc., capital \$62,500, chartered; Jas. F. Wrenn, Pres.; Tracy M. Wise, Secy.

FOUNDRY AND MACHINE PLANTS

Ark., Texarkana.—Cotton Choppers.—Johnson Company, capital \$50,000, inceptd.; Jas. A. Johnson, Pres.; C. D. Johnson, V.P.; J. L. Johnson, Secy.-Treas.

Md., Baltimore.—Munitions.—Bartlett Hayward Co., Scott and McHenry Sts., will erect 1-story 20x37-ft. button house at Columbia Ave. and Patuxent St.; Parker, Thomas & Rice, Archts., Union Trust Bldg.; Morrow Bros., Contrs., 127 Fidelity Bldg.; both of Baltimore.

Md., Baltimore.—Shrapnel Balls.—John T. Lewis & Bros. Co. (branch of National Lead Co.), C. A. Geatty, Mgr., 1913 E. Fayette St., will erect 1-story 20x100-ft. main building of brick, steel and concrete; install machinery to manufacture shrapnel balls for Bartlett Hayward Co.; also several smaller buildings; 5 acre-site at Baltimore & Ohio R. R. and Columbia Ave.

Md., Edgewood.—Ordnance.—War Department, Col. Wm. H. Walker, Ordnance Dept., in charge for Edgewood Arsenal, 311 W. Monument St., Baltimore, will build plant to assemble, test, repair, store and otherwise handle ordnance; reported to expend \$20,000,000 for building construction, machinery, etc.; let \$200,000 contract to Austin Company, Bulletin Bldg., Philadelphia, to construct foundations for 10 buildings 200x100 ft.; operation closely allied with nearby poison gas works (heretofore noted); reported to represent investment of \$5,000,000 for buildings, machinery, etc.

Mo., Clinton.—Castings.—John Wilkes, Harrisville, Mo., let contract to erect foundry for castings.

Mo., St. Louis.—Naval Guns and Shells.—McDonald Engineering Co. will expend \$1,500,000 for additional plants manufacturing naval guns and shells for War Dept.; buildings of reinforced concrete fireproof construction; build and operate under direction War Dept. (See Moon Motor Car Co. item.)

Mo., St. Louis.—Naval Guns and Shells.—Moon Motor Car Co., S. McDonald, V.P., will expend \$1,500,000 for additional plants manufacturing naval guns and shells for War Dept.; let contract to Greive Construction Co., Century Bldg., St. Louis, for 4-story 126x19-ft. and 66x50-ft. reinforced concrete factory building, including foundations and floors, costing \$18,700; also for 1-story 72x50-ft. reinforced concrete, steel and brick heat-treating plant, on concrete foundations, costing \$6400; build and operate under direction War Dept. (See McDonald Engineering Co. item.)

Mo., St. Louis.—Munitions.—Seullin Steel Co. will build munitions manufacturing plant; expend \$1,500,000; buildings of reinforced concrete fireproof construction; install machinery to employ 20,000 men; build and operate under direction War Dept.

N. C., Roaring River.—Corn Mills.—W. J. Palmer and Will Holder will build plant to manufacture corn mills; has 6-acre site.

N. C., Ronda.—Corn Mills.—C. H. Greenwood, L. D. Salmon, both of Roaring River, N. C., and J. V. Foote of North Wilkesboro, N. C., will build plant to manufacture corn mills.

Okla., Tulsa.—Pop Corn Machines.—Leetrie Sales Co., Logansport, Ind., is reported to establish pop corn machine plant.

S. C., Columbia.—Grist Separators.—Capital Grist Separator Co., capital \$10,000, inceptd. by B. B. Kirkland and G. B. Bunkrick.

S. C., Greenville.—Textile Mill Devices.—Textile Economy Co., organized with \$30,000 capital by John Morton and J. W. Jones.

GAS AND OIL ENTERPRISES

Fla., Jacksonville.—Gas.—War Dept. let contract W. P. Richardson of Jacksonville to construct gas distribution system in connection with development of city for shipworkers. (See Buildings, Contracts Awarded, Government and State.)

Kentucky.—Turtle Oil & Gas Co., capital \$99,000, inceptd. by Chas. W. Jackson, Edmund L. Jones, Frank C. Kirkpatrick and others.

Ky., Maysville.—Mason Oil Producing Co., inceptd. by H. P. Funnell and others; capital \$35,000.

La., Shreveport.—Black Lake Land Co., capital \$50,000, inceptd. to develop 4200 acres oil land; H. H. Pardue, Pres.; A. G. Hemmett, V.P.; R. R. Emery, Secy.-Treas.

N. C., Charlotte.—Oil Station.—Gulf Refining Co. (main office, Pittsburgh) will build

oil-station addition to include boiler-room, cooper shop and garage; cost \$5000.

Okla., Bartlesville.—Commerce Petroleum Co., capital \$100,000, inceptd. by J. F. Jacobs, John DeHart and E. E. Heyl.

Okla., Clinton.—Kimble Oil Co., capital \$300,000, inceptd. by C. W. Brewer and others.

Okla., Custer City.—Aline Garber Oil & Gas Co., capital \$150,000, inceptd. by L. J. Knack and J. N. Cunningham of Custer City and Chas. Peterson of Putnam, Okla.

Okla., Oilton.—Sun-Gold Corp., capital \$99,000, inceptd. by J. A. Owens, Jno. E. Haynes, both of Oilton, and W. C. Wolfe of Oklahoma City.

Okla., Enid.—Towanda Enid Oil Co., capital \$25,000, inceptd. by C. V. Porter, L. B. McClellan and F. S. Kirk.

Okla., Eufaula.—Titewad Oil & Gas Co., capital \$25,000, inceptd. by J. W. Porter, K. B. Turner and C. L. Follenshee.

Okla., Muskogee.—DeWitt Oil Co., capital \$69,000, inceptd. by J. E. Ellison, Vin Truman and C. T. Burns.

Tenn., Alton Park.—Oil Refinery.—Lookout Oil & Refining Co. will rebuild plant at 45th St. and Kirkland Ave. reported burned at loss of \$25,000 to \$40,000.

Tex., Austin.—West Texas Oil Corp., capital \$1,000,000, inceptd. by William F. O'Keefe, Geo. G. Stiegler, J. H. Dowdell, all of Wilmington, Del.

Tex., Clarendon.—V. Brice Oil & Gas Co., capital \$100,000, inceptd. by H. Lott, W. H. Youngblood and A. E. Benson.

Tex., Dallas.—Cavalry Oil Co., capital \$75,000, inceptd. by A. B. Kendrick, Cecil Casey and S. C. Colgin.

Tex., Dallas.—Burk-Electra Petroleum Co., capital \$250,000, inceptd. by A. W. Walker, L. L. Henderson, W. B. Haminton and others.

Tex., Eastland.—Oil Refinery.—Great Southern Oil & Refining Assn., 403 Linz Bldg., Dallas, Tex., organized; O. B. Colquitt, Pres., Dallas; C. U. Connelley, V.P., Eastland; H. A. Wroe, V.P., Austin; authorized capital \$1,000,000; drill for oil; considering purchase and removal of refinery from Oklahoma to Eastland. (Great Southern corporation lately noted buying site for 2000-bbl. daily capacity oil refinery. O. B. Colquitt and others lately noted to build 2000-bbl. refinery.)

Tex., Electra.—Electra Dome Oil & Gas Co., capital \$150,000, inceptd.; R. L. Clayton, Pres., Celina, Tex.; S. Weisman, V.P.; Tom W. Perkins, Secy.; J. W. Ashley, Treas.; all of McKinney, Tex.

Tex., Tahoka.—Tahoka Oil & Gas Co., capital stock \$100,000, will install 15-in. piping; length of lines not decided; has let building contracts; drill by company force. Lately noted inceptd. (See Machinery Wanted—Well-drilling Equipment, etc.)

Tex., Wichita Falls.—Oil Refinery.—Power Oil Refinery Co., organized; capital \$125,000; W. L. Mann, Pres.; J. A. Aiken, V.P.; H. A. Wier, Secy.-Treas.; build refinery with daily capacity 1000 bbls. oil.

ICE AND COLD-STORAGE PLANTS

Fla., Bunnell.—Bunnell Ice, Light & Water Co. will install additional machinery to increase capacity of ice plant.

Fla., Oldsmar.—Oldsmar Electric & Ice Co., chartered; capital \$10,000; Jacob Bornstein, Pres.

Tex., Voth.—Keith Lumber Co. contemplates installing ice machine, 3 to 6 tons daily capacity. (See Machinery Wanted—Ice Machinery; Bottles.)

Va., Crozet.—Carter Corp., Wm. Fitzhugh Carter, Pres., is erecting cold-storage warehouse, 20,000 bbls. capacity; fireproof, reinforced concrete structure; 50x63 ft.; 6 stories; cost \$42,000; contract let in May to Mims, Speake & Co., Luray, Va.; Archt., J. R. Mims, Luray; Constr. Engr., C. A. Speake, Crozet. (See Machinery Wanted—Pipe; Ventilating System; Roofing; Sign.)

Va., Norfolk.—Anheuser-Busch Brewing Assn. will expend \$61,000 to build 150,000 additional ft. of cold-storage space for seed potatoes.

IRON AND STEEL PLANTS

Md., Sparrows Point.—Iron Furnaces, Steel Plate Mills, etc.—Bethlehem Steel Corp. will expend \$50,000,000 to build additional iron furnaces, steel plate mills, coke ovens, etc.; will receive advance of \$20,000,000 from War Finance Corp. and obtain \$30,000,000 on 1 to 5-year serial notes underwritten by bankers, syndicate; complete these new improvements within 12 months.

LAND DEVELOPMENTS

Ark., Glenwood.—Mazern Valley Land Co., 847 Central Ave., Hot Springs, Ark., further advises Manufacturers Record; J. A. Bonner, Pres.; Jas. Clark, V.P.; S. N. Fain, Treas.; W. E. Mayher, Secy.; Burton D. Hurd, Mgr.; capital stock \$100,000; develop 78,000 acres in Garland, Pike, Hot Spring, Montgomery and Clark counties for dairying, stock farming and fruit growing; Engr., J. C. Standefer, Hot Springs. (Additional facts lately stated.)

Fla., Orlando.—De Soto Groves Co., chartered; capital \$100,000; Thos. J. Watkins, Pres.; D. G. Barnett, Secy.-Treas.

Ga., Aragon.—Aragon Mills has preliminary report by E. L. Draper, 506 Trust Bldg., Charlotte, for village improvements.

Ga., Atco.—American Textile Co. contemplates village improvements; has preliminary report by E. L. Draper, 506 Trust Bldg., Charlotte, N. C.

Ga., La Grange.—Dixie Cotton Mills will have plans by E. L. Draper, 506 Trust Bldg., Charlotte, N. C., for development of community center.

Ga., Macon.—Bibb Mfg. Co. contemplates village improvements; has preliminary report by E. L. Draper, 506 Trust Bldg., Charlotte, N. C.

Md., Shadyside.—Idlewild Development Co., capital \$50,000, inceptd. by Wm. G. Nowell, Robt. F. Nowell and John Nowell, all of Annapolis, Md.; develop summer resort.

N. C., Brookford.—Brookford Mills has preliminary report by E. L. Draper, 506 Trust Bldg., Charlotte, N. C., for contemplated village improvements.

Va., Norfolk.—Buckroe Beach Development Corp., chartered; capital \$50,000; Percy A. Page, Pres.; W. R. Butcher, Secy.

Va., Staunton.—Shenandoah Orchards, chartered; capital \$30,000; C. M. Ackerman, Pres.; B. L. Jackson, Secy.; both of New York.

LUMBER MANUFACTURING

Ala., Cox.—Pensacola Cooperaage Co., Pensacola, Fla., purchased hardwood timber land on Alabama River; manufacture staves; daily capacity 10,000 rough staves.

Ark., Huttig.—Union Sawmill Co. will rebuild plant reported burned at loss of \$10,000 to \$45,000.

Ark., Nashville.—Allen Lumber & Box Co. will rebuild sawmill and box factory reported burned at \$20,000 loss.

Ark., Texarkana.—Dorsey Land & Lumber Co. increased capital to \$450,000.

Fla., Galliver.—Hutton Lumber Co. purchased Brown-Belcher Mill; installing but little new machinery. Under Fla., Pensacola, lately noted inceptd., \$150,000 capital; E. S. Hutton, Pres., Lapel, Ind.; I. A. Dye, V.P., Monroeville, Ala.; J. W. Bates, Secy.-Treas., Poteau, Okla. (Officers are also officials of Hutton-Dye Lumber Co., Monroeville, Ala.)

Fla., Dupont.—Ford-Rembert Lumber Co., Azel Ford, Pres., advises Manufacturers Record; Mr. Ford and H. G. Rembert (V.P.) operating sawmills at Dupont and Viking, interested in mill at Aventina; rebuilt sawmill at Dupont, daily capacity 50,000 ft.; contemplates 30,000 ft. daily at Viking, on completion 3-mi. standard-gauge railroad extension and 3-mi. spur under construction; Aventina daily capacity 25,000 ft.; has planing-mill at Viking; dry kiln and planing-mill at Dupont. (Lately noted chartered, \$375,000 capital.)

Fla., Tampa.—Ansley Lumber Co., 412 Curry Bldg., plans increasing capital from \$25,000 to \$100,000.

Ga., Savannah.—Coleman & McEwen Tie Co., capital \$2000, inceptd. by L. B. McEwen and others.

Ky., Paducah.—Sherrill-Russell Lumber Co. increased capital from \$75,000 to \$150,000; enlarging plant to increase capacity one-third; purchased additional machinery.

Miss., Hivance.—Meridian Lumber Co. will rebuild mill reported burned.

Mo., Kansas City.—Arkansas Short Leaf Lumber Co. increased capital from \$1,100,000 to \$1,500,000.

Mo., St. Louis.—Dix-Newhouse Lumber Co., capital \$2000, inceptd. by Bert M. Newhouse and others.

S. C., Darlington.—Ray Lumber Co. increased capital from \$25,000 to \$200,000.

Tex., Hemphill.—Sabine County Lumber Co., capital \$30,000, inceptd. by C. C. Goodwyn and others.

Tex., Houston.—Williams-Hicks Lumber Co., capital \$50,000, inceptd. by T. J. Wil-

liams, B. C. Williams, S. B. Hicks and others.

W. Va., Whitmer.—Fisher Lumber Co. will rebuild locust mill reported burned.

METAL-WORKING PLANTS

Mo., Joplin.—Metal.—New Carolyn Metal Co. purchased Neosho Granby Metal Co.'s property; plans to erect 300-ton mill and double output of present 150-ton mill; purchase equipment, including crushers, air compressors, engines, boilers, etc.; estimated cost, \$100,000.

Mo., St. Louis.—Copper and Sheet Iron.—Alois Aufrecht Copper & Sheet Iron Mfg. Co., capital \$100,000, inceptd. by Chas. Aufrecht, Alfred Alina, H. Vogel and others.

Tex., Alpine.—Metal Products.—Metal Products Assn. let contract Baker Iron Works, Los Angeles, Cal., at \$80,000 to construct 70x110-ft. steel smelter.

MINING

Ala., Gadsden.—Lead.—Blanche Lead & Mining Co. organized by J. J. Moore, G. E. Hill and D. C. Springfield; plans developing mineral property.

Ark., Gulon.—Glass Sand.—Sand-O'Dell-Daily Material Co. will install glass-sand crusher to provide for daily capacity 3 to 4 car loads.

Ark., Flippin.—Zinc.—Ohio Zinc Mining Co. will build concentrating mill at zinc mines 6 mi. west of Flippin.

La., Lafayette.—Salt.—Benner's Salt Co., Box 836, New Orleans, La., will develop 80 acres; daily output 1000 tons; A. P. McLendon, Pres.; H. A. Benner, V.P.; W. McL. Fayssoux, Secy.-Treas.; R. S. Shelton, Engr. Previously noted organized, etc. (See Machinery Wanted—Mining and Crushing Machinery.)

Mo., Joplin.—Lead and Zinc.—Kirkwood Mining Co., S. A. Smith, Gen. Mgr., contemplates constructing 150-ton concentration plant; install sludge tables, motors and crushers; cost \$40,000.

N. C., Lansing.—Iron.—Lansing Mining Co., chartered by Geo. W. Cook of Johnson City, Tenn.; G. S. Cook of Nashville, Tenn., and others.

Okla., Ardmore.—Security Oil & Mining Co., capital \$50,000, inceptd. by B. W. Scruggs and others.

Okla., Oklahoma City.—Gopher Mining Co., capital \$200,000, inceptd. by E. W. Gould and Cam Galt of Oklahoma City and C. W. Gould of Lawrence, Kan.

Okla., Oklahoma City.—New Discovery Mining Co., capital \$100,000, inceptd. by W. O. McGill of Oklahoma City, O. J. Parra, Dallas, Tex., and W. M. Kopisch of Enid, Okla.

Okla., Picher.—Commonwealth Zinc & Lead Co. of Miami, Okla., contemplates rebuilding burned mill; equipment includes boilers, engines, conveyors, crushers, belts, etc.; cost \$100,000.

Okla., Peoria.—Nebo Lead & Zinc Co., E. C. Crosden, Supt., has plans for construction of 150-ton concentration plant to cost \$800; equipment includes air compressors, engines, boilers, belts, conveyors, ore crushers, tracks, etc.

Tenn., Chattanooga.—Loomis & Hart Mining Co., capital \$10,000, inceptd. by Gaston C. Raul and others.

Va., Longspur.—Manganese.—Suffern Company, Ernest S. Suffern, Pres., 135 Broadway, New York, will develop 1000 acres manganese lands; capacity not yet estimated; Clarence Woods, Mgr., Long Spur.

W. Va., Moundsville.—Ore Smelter.—United States Smelting Corp., Frisco Bldg., contemplates erecting ore-smelting plant.

MISCELLANEOUS CONSTRUCTION

D. C., Washington.—Canal Wall.—Comms. Dist. of Columbia will reconstruct canal wall between Aqueduct Bridge and Foundry Branch; Board of Comms., Room 511, District Bldg., receives bids until July 16.

Md., Indian Head.—Bulkhead, etc.—Navy Dept. let contract McLean Contracting Co., 1412 Fidelity Bldg., Baltimore, Md., at \$45,575 to build coal-storage area and bulkhead.

S. C., Paris Island.—Steam System, etc.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., let contract John Griffiths & Son Co., 112 W. Adams St., Chicago, at \$1,666,600 to install steam system, construct seawall, piers, etc., at marine barracks. (See Road and Street Work.)

Tex., Houston.—Natorium.—Houston Natorium Co., Washington Ave. and Hemphill St., let contract to J. L. Tibbott, 210

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Washington Ave., to construct cement pool 100 ft. with room and locker accommodations for 1200; also restaurant, grandstand and laundry; cost \$30,000; Engr. Howard and Wise, Houston Bldg., Houston. Work in May. (See Machinery Wanted—Laundry Machinery.)

MISCELLANEOUS ENTERPRISES

Fla., Jacksonville—Fishery.—Feuerstein Fish Co. chartered; capital \$25,000; Louis Feuerstein, Pres.; Hilton P. Meekins, Mgr. Fla., Quincy—Hardware.—Dickenson Hardware Co., capital \$20,000, inceptd.; J. P. Speight, Pres.; M. E. Dickenson, V.-P.; T. E. Dickenson, Secy.-Treas.

La., Natchitoches—Grain Elevator.—Natchitoches Elevator Co. will rebuild grain elevator reported burned at \$8000 loss.

Mo., Clinton—Grain Elevators.—Wm. H. Burley Grain Co. will build 4 grain elevators; let contract to T. Woodruff of Clinton; Southwestern Engineering Co., Engr., Springfield, Mo.

X. C., Charlotte—Stone Works.—John J. Morton Stone Co. will expend \$6500 to enlarge plant; has let contract to remodel buildings and install new machinery.

X. C., Greensboro—Electrical.—R. H. Milton Electric Co. organized; S. R. Morrison, Pres.; S. G. Milton, Secy.; R. H. Milton, Mgr.; electrical contracting and engineering; dealers in electrical supplies. (Lately noted inceptd., \$25,000 capital.)

Okla., Foyill—Grain Elevator.—Foyill Elevator Co. inceptd. by B. J. Faulkner and others; capital \$4000.

S. C., Columbia—Incinerator.—City let contract Nye Odorless Crematory Co., Macon, at \$7500 to install incinerator; daily capacity 15 tons. T. Keith Legare, City Engr. (Lately noted inviting bids.)

Tenn., Knoxville—Flower Cultivation.—Baum's Home of Flowers, capital \$50,000, inceptd. by Chas. C. Baum, G. W. Chesney and others.

Tenn., Nashville—Automobile Transportation.—Truck-King Sparks, capital \$25,000, inceptd. by A. L. Lawson, King Sparks and others.

Tenn., Memphis—Stockyards.—Memphis-Wyoming Stock Yards Co., C. S. Thomas, Pres., Cheyenne, Wyo., will build stockyards; first unit to consist of 40 pens, each 100 ft., of wood with concrete base.

Tex., Corpus Christi—Publishing.—Times Publishing Co., capital \$3000, inceptd. by J. W. Bauerfield and others.

Tex., Houston—Laundry.—National Laundry, capital \$5000, inceptd. by A. J. Phillimore and others.

Tex., Markham—Grain Elevator.—Markham Elevator & Warehouse Co. increased capital from \$10,000 to \$20,000.

Tex., San Antonio—Laundry.—Mr. Hall let contract to Fred. Adebahr, 529 Denver Blvd., San Antonio, to remodel burned 54x153-ft. brick laundry building, with galvanized iron roof and concrete floors; cost, without equipment, \$14,000; plans by Herff & Johns, San Antonio.

Va., Alexandria—Engineering.—Belvoir Engineering & Construction Co., capital \$50,000, chartered; W. T. Kaufman, Pres., New York; John G. Graham, Secy., Alexandria.

Va., Richmond—Printing.—Trevett, Christian & Co. chartered; capital \$25,000; John T. Christian, Pres.; W. H. Trevett, Secy.

W. Va., Clarksburg—Construction.—Keely Construction Co. inceptd. by Jno. P. Keely and others; capital \$100,000.

MISCELLANEOUS FACTORIES

Ala., Anniston—Confectionery.—Lyric Confectionery Co. inceptd. with \$30,000 capital by M. S. Theodos, Victor Nicholas and Harry Bouras.

D. C., Washington—Yeast.—Corby Co., Langdon Stn., will erect boiler-house; let contract to F. L. Wagner, 1413 H. St. N. W., Washington, D. C.; install 600 H. P. steam boiler; has equipment; C. B. Comstock, Engr., New York.

Ga., Gainesville—Underwear.—Mincey Mfg. Co. inceptd., \$10,000 capital, by E. E. Mincey (Mgr.), Gainesville, and Geo. T. Penny, High Point, N. C.; manufacture nainsook underwear; purchased 30 machines; use 3 H. P. electric motor; cost of machinery, \$6000; increase capacity later; rent building.

Ga., Savannah—Peanut Products.—Stebbins Co., capital \$25,000, inceptd. by Homer F. Geiger, J. C. Tyson and Thos. L. Hill.

Ky., Frankfort—Maltose, Corn Oil, etc.—Franklin Grain Products Co., Geo. M. Allen, Pres., 60 Broadway, New York, will estab-

lish plant for making maltose in solid and syrup form, corn oil and cattle feed; machinery to cost \$75,000. See Flour, Feed and Meal Mills. (See Machinery Wanted—Cookers and Driers.)

Ky., Louisville—Tobacco.—Western Tobacco Co., capital \$100,000, inceptd. by G. O. Tuck, J. M. Buckner and J. Wallace Vaughan.

La., New Orleans—Bags.—Fulton Bag Co. will build additional factory.

La., New Orleans—Dyes.—Southern Chemical & Dye Co., 316 Godchaux Bldg. (lately noted inceptd., \$75,000 capital), organized; advises Manufacturers Record: Increase capital stock to \$150,000; Albert T. Thompson, Pres.; Henry Gelph, V.-P.; John E. Garcin, Secy.; open bids about August 1 to erect 130x40-ft., 2-story building; install vacuum dryers, boiling tanks, grinding mills; daily capacity of plant 1000 to 1500 lbs. vegetable dyes; on machinery proposals address Wm. Ficker, 2501 Port St. (See Machinery Wanted—Boilers.)

Md., Baltimore—Vinegar.—Baltimore Mfg. Co., Monument and Constitution Sts., let contract D. Sheppard & Co., Boston, Mass., at \$110,000 to erect addition to plant at Central Ave. and Bank St.; 4 stories; reinforced concrete and brick; 5 units; site 123x89.10 ft.; plans by Chas. A. Jackson of New York.

Md., Cumberland—Cellulose.—War Department, Washington, D. C., will build \$10,000,000 plant to manufacture cellulose for war purposes; 500-acre site for plant buildings, machinery, industrial city, etc.; location on Potomac River; employ several thousand men; form corporation to operate plant. (Lately noted to build plant.)

Md., Cumberland—Cellulose.—The Cellulose Co., New York, financed by Vickers Company and Nobel Company, London, will build \$10,000,000 plant to manufacture cellulose for war purposes; principally for airplanes; main building of fireproof construction, 1 story high, completion within 4 months; George A. Fuller Co., Gen. Contr., Fuller Bldg., New York; Hector Roy will represent Cellulose Company at Cumberland; products taken by Government until war ends; after war convert cellulose into acids, drugs, dyes, etc.; 500-acre site for plant proper; additional acreage for industrial city; location on Potomac River; initial total investment \$5,000,000, with plan for doubling; Cumberland Development Co. plans accompanying developments to house construction and operating employees. (War Dept. lately noted to build \$10,000,000 plant.)

Mo., St. Louis—Corrugated Paper.—American Paper Products Co., 215 Branch St., will remodel factory; cost \$3000.

Mo., St. Louis—Oil Cloth.—Alligator Oil Cloth Co., B. M. Flournoy, Mgr., 1118 S. Grand Ave., St. Louis, to erect factory; 2 stories; 182x200 ft.; cost \$100,000; let contract Murch Brothers Construction Co., Railway Exchange Bldg., St. Louis; plans by Leonhard Haeger, 3844 Utah Place, St. Louis.

Mo., St. Louis—Bags.—Worthan Bag Co. will occupy (as warehouse) building lately noted to be rebuilt at Dock and Main Sts.; Hafner Mfg. Co., owner, will make repairs (building only damaged); cost \$25,000; install elevator; no other machinery.

Mo., St. Louis—Shoes.—Pedigo-Weber Shoe Co., Vandeventer and Laclede Aves., let contract Murch Bros. Construction Co., Railway Exchange Bldg., St. Louis, to erect factory; 6 stories; reinforced concrete and brick; concrete foundation; reinforced concrete floor; cost \$85,000. (Lately noted.)

N. C., Charlotte—Chemicals.—Oliver Quartz Co. has plans by and let contract to Chemical Construction Co., Charlotte, for erection 1-story, 100-ft. square brick and cement building, with tar and gravel roof and wood and cement floors, on East Palmer St.; cost, without equipment, \$5000; steam heat; Columbite Reduction Co., Edgar S. Ross, Chemist, Trust Bldg., Charlotte, receives bids for laboratory equipment, etc., for manufacture of metals and chemicals. (See Machinery Wanted—Laboratory Equipment; Chemicals.)

N. C., Durham—Tobacco.—Liggett & Myers Tobacco Co. will increase capacity or build additional factory.

N. C., Greensboro—Chemicals.—Vick Chemical Co. will erect addition.

N. C., Raleigh—Tobacco.—American Tobacco Co., H. A. Penn, Mgr., will establish tobacco stemmery; has building and let improvement contracts.

N. C., Salisbury—Medicine.—Drum Medicine Co. will build factory.

N. C., Washington—Sweeping Compound.—H. C. Bragaw is interested in proposed installation of machinery to manufacture sweeping compound. (See Machinery Wanted—Sweeping Compound Machinery.)

Tex., Brownwood—Glass.—Brownwood Glass Mfg. Co., Henry Wagner, Pres., Tulsa, Okla., will construct glass-manufacturing plant; cost \$100,000; purchased glass-sand deposit; contracted for natural gas fuel. (Lately noted organized, Mr. Wagner, Pres.; Boone Smith, V.-P., Brownwood; W. L. Fulford, Secy., Fort Worth.)

Tex., El Paso—Brooms.—Glenn Broom Mfg. Co. increased capital from \$10,000 to \$30,000.

Tex., Houston—Ice Cream.—Independent Electric Ice Cream Co. chartered with \$40,000 capital by H. S. Filson, H. R. Dean and others.

Va., Lynchburg—Tanning Extract.—John H. Heald Co. will rebuild extract plant reported burned at loss of \$75,000.

Va., Richmond—Dairy Products.—Frozen-Pure Co., capital \$1,250,000, chartered; P. M. Turney, Pres.; J. M. Newton, Secy.

Va., Saltville—Gas Bombs.—War Dept. will build plant to manufacture gas bombs for war purposes; obtain chemicals from Mathison Alkali Works. (Noted in March to build \$250,000 chemical manufacturing plant operating in connection with Mathison company and general building contract let to Frazier-Brace Co., 1328 Broadway, New York.)

Va., Staunton—Garments.—Staunton Mfg. Co., Abe Walters, representative, let contract to G. W. Fretwell of Staunton to erect garment factory; 1 story; 75x100 ft.; brick, concrete and steel; saw-tooth skylight; 10,000 sq. ft. floor space; annual capacity 50,000 to 75,000 garments. (Lately noted.)

W. Va., Mullens—Bottling.—Magi Cola Ice & Bottling Corp. let contract Early Brothers, Mullens, to erect addition; 2 stories and basement; 30x60 ft.

MOTOR CARS, GARAGES, TIRES, ETC.

Ark., Rogers—Garage.—J. W. Robinson will rebuild garage reported burned at loss of \$3500.

Ky., Louisville—Automobile Repair Shop.—Louisville Automobile Painting & Trimming Co., 728 S. Fourth St., is having plans prepared by Thos. J. Nolan, Louisville, for shop; 1 story; 50x132 ft.

Ky., Louisville—Garage.—Standard Oil Co. will erect fireproof garage at 426 W. Bloom St. to cost \$11,500.

Md., Baltimore—Garages.—Alex. Katzenberg of A. S. Katzenberg & Bro., 1139 Pennsylvania Ave., will erect eight 1-story brick individual garages at 2304 Eutaw Pl.; 18x10 ft. each; slag roofs; Fred Beall, Archt., 306 St. Paul St.; I. T. C. Leary, Contr., both of Baltimore.

Md., Baltimore—Garage.—H. Webster Cooke, 209 Law Bldg., has plans by John C. Spedden, 2715 Harlem Ave., Baltimore, for garage at 3626 Greenmount Ave.; 1 story; brick.

Md., Baltimore—Garage.—Northeastern Amusement Co., 1905 E. Hoffman St., will erect public garage at 1349 N. Gay St.; 1 story; brick; 30x70 ft.; slag roof; steam heat; Henry L. Maas, Contr., 1119-21 Ensor St., Baltimore.

Md., Baltimore—Automobile Repairs.—Baltimore Buggy Top Co., 107-13 W. Mount Royal Ave., is having plans prepared by Clyde N. Friz, 1523 Munsey Bldg., Baltimore, for addition; 75x117 ft. and 2 stories.

Md., Baltimore—Garage.—Columbus H. Nunally, 1615 Hanover St., will erect 1-story garage at 122 E. Fort Ave.; Wm. Z. Carmichael, Contr., 1746 Calhoun St., Baltimore.

Mo., St. Louis—Automobiles.—Edwards Sales Co., capital \$25,000, inceptd. by Cyrus W. Edwards, Max Lippman and others.

Mo., St. Louis—Garage.—David O'Neill let contract Sol Abrahams & Son, Chemical Bldg., St. Louis, for garage; 1 story; 125x150 ft.; plans by Nat Abrahams, Chemical Bldg., St. Louis.

Mo., St. Louis—Garage.—Frank Bohle will remodel garage; cost \$3000; construction by owner.

Mo., St. Louis—Garage.—Albert G. Eckhardt will erect garage; 1 story; 100x105 ft.; cost \$5000.

Mo., St. Louis—Garage.—Yale Garage & Motor Car Co. will erect garage; 1 story; cost \$50,000.

N. C., Charlotte—Garage.—Gulf Refining Co. will build garage. (See Gas and Oil Enterprises.)

Okla., Beaver—Garage.—Phelps Bros. will erect garage; 1 story; 50x140 ft.

Okla., Enid—Garage.—M. E. Garber will erect garage; 2 stories; 50x150 ft.; cost \$20,000.

Okla., Oklahoma City—Garage.—D. R. Morris will erect garage; 1 story; 100x140 ft.

Okla., Oklahoma City—Motor Cars.—Packard Oklahoma Motor Car Co., capital \$40,000, inceptd. by W. J. Parrish of St. Louis, Mo., and L. T. Shelton of Kansas City, Mo.

Okla., Tahlequah—Garage.—Ideal Garage & Motor Co., capital, \$5000, inceptd. by S. H. Redburn, John R. Hicks and W. S. Barnes.

S. C., Greenville—Automobiles.—W. N. Watson purchased site 100x150 ft. on which to erect building for automobile service station.

Tenn., Memphis—Automobiles.—Tri-State Motor Sales Corp., capital \$98,000, chartered by J. W. Clintock, H. H. Orr, Iver Schmidt and others.

Tenn., Nashville—Garage.—J. W. Blair will erect garage; 1 story; cost \$16,000.

Tex., Denison—Automobiles.—Pearce Auto Co., capital \$40,000, inceptd. by H. E. Pearce and others.

Tex., El Paso—Automobile Supplies.—Yonge Auto Supply Co., capital \$25,000, inceptd. by Roy C. Young and others.

Tex., Fort Worth—Tires and Tubes.—Southland Tire & Rubber Co. advises Manufacturers Record: Wm. Ginnuth, Pres.; J. C. Verner, V.-P.; C. W. Ziegler, Secy.; M. L. Allard, Mgr.; first unit 80x300 ft., fireproof, cost within \$250,000; materials supplied; buildings being constructed by day labor, under supervision of architect and foreman and of Southland superintendent; building of cement, brick and glass, 3 stories and basement; all machinery purchased; daily capacity 1500 tires and tubes; M. C. Parker, Archt. (Lately noted.)

Tex., Fort Sam Houston—Motor Repair Plant.—War Dept., Major Arthur M. Shaw, Constr. Quartermaster, Mechanical Repair Unit No. 304, has plans and specifications for \$1,500,000 motor-repair plant, garage, etc.; erect 2 large permanent buildings and 40 living barracks for 2000 workmen; 84-acre site; main building, 500x500 ft., of steel frame with glass sides, concrete floors and roof; this building and storage-house for parts will cost \$1,000,000; the 2 to occupy 6 acres; other plant buildings and machinery to cost \$500,000; American Construction Co., Gen. Contr., 411 Gulf Bldg., Houston. (Lately noted under San Antonio to build motor-repair plant, etc.)

Tex., Kaufman—Garage.—Emmett & Carlisle will erect garage; 1 story; 50x100 ft.; cost \$10,000.

Tex., Lockhart—Garage, etc.—J. F. Stroud will rebuild blacksmith shop and garage lately noted burned; 36x60-ft., 1-story, wood building, with metal roof and cement floor. (See Machinery Wanted—Drill; Lathe.)

Tex., Plano—Garage.—Harrington Motor Co. will erect garage; 1 story; 53x208 ft.; cost \$10,000.

Tex., San Antonio—Motor Trucks, etc.—Lone Star Truck & Tractor Assn. (organized by L. M. J. Dielman, H. C. Feldman, W. V. Dielman and others) let contract J. C. Dielman of San Antonio to erect plant; 455x80 ft.; 5 units; concrete loading platform, 30x80 ft.; cost, \$50,000 to \$75,000; manufacturers motor trucks, tractors and trailers. (Lately noted.)

Tex., Sterling City—Garage.—Benj. Hawls will erect garage; 1 story; brick and concrete; cost \$6000.

Tex., Sulphur Springs—Garage.—Hopkins Motor Co. will erect garage; 1 story; 50x137 ft.; cost \$14,000.

Tex., Tyler—Garage.—City Garage increased capital from \$7500 to \$20,000.

Va., Hopewell—Automobiles.—Virginia Steam Motor Co. inceptd.; capital \$25,000; A. D. Spencer, Pres.

W. Va., Clarksburg—Garage.—W. C. Osburn will erect commercial garage; 1 story; 62x70 ft.; cost \$6500.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Md., Hagerstown—Norfolk & Western Ry., J. E. Crawford, Ch. Engr., Roanoke, Va., is reported as considering plans for erection of shops.

ROAD AND STREET WORK

Ala., Moulton—Lawrence County Comms. authorized issuance of \$11,000 warrants to construct road from Morgan County line; State to contribute \$6000 and Government \$17,000; total \$30,000.

Ark., Magnolia—Comms. (R. L. Westbrook and others) Magnolia-McNell Road Improvement Dist. No. 1, Columbia County, ask bids until July 31 to construct 13½ mi. gravel road; 60,000 cu. yds. grading; 28,500 cu. yds. gravel; 150 cu. yds. plain and 350

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

en. yds. reinforced concrete; 1000 lin. ft. pipe culvert; Parkes Engineering Co., Dist. Engr., Citizens' Bank Bldg., Pine Bluff, Ark. (See Machinery Wanted—Road Construction.)

Fla., Jacksonville.—War Dept. let contract W. P. Richardson of Jacksonville to construct streets in connection with development of city for ship builders. (See Buildings, Contracts Awarded, Government and State.)

Fla., Miami.—City voted \$40,000 bonds for street paving. Address City Engr. Murray. (See Sewer Construction.)

Ga., Atlanta.—City will pave Luckie St.; capping granite blocks with asphalt; day labor; Fulton County appropriated \$7982.50 for widening same; total estimated cost \$50,000 to \$60,000; H. L. Collier, Chief of Constr. (Supersedes recent item.)

Ga., Hiwassee.—Towns County Comms. ordered election to vote on \$30,000 bonds to construct roads; Government to appropriate \$30,000 additional.

Ga., Southwest Lagrange, P. O. at Lagrange.—City, C. W. Coleman, Mayor, will expend \$10,000 to improve streets and sidewalks; G. H. Sargent, City Engr. (Lately noted to vote July 24 on \$10,000 bonds.)

Ky., Walton.—City will pave Main St. with concrete. Address The Mayor.

Md., Baltimore.—City will grade and pave with cement concrete alleys as listed in Private Alley Contracts Nos. 40, 41 and 53; bids until July 24; R. M. Cooksey, Highways Engr. (See Machinery Wanted—Paving.)

Miss., Columbus.—Lowndes County, Artesia Road Dist., votes July 30 on \$25,000 bonds to construct roads. Address County Comms.

Miss., Columbus.—Lowndes County, West Port Road Dist., votes July 30 on \$25,000 bonds to construct roads. Address County Comms.

Miss., Columbia.—Lowndes County, Zion Road Dist., votes July 30 on \$10,000 bonds to construct roads. Address County Commissioners.

Miss., Magnolia.—Pike County Supvs., Jno. W. Gatlin, Prest., plan to issue bonds to construct roads in Third Road Dist.

Miss., Meridian.—Lauderdale County Commissioners will construct 13 mi. of road in District No. 2; Government official made survey; \$20,000 bonds available; Government to contribute \$20,000 additional.

Mo., Clayton.—St. Louis County Comms. and State of Missouri will repair Lemay Ferry and Telegraph Roads from city limits of St. Louis to Jefferson Barracks; cost \$75,000; contract labor under supervision of W. W. Elbrink, County Highway Engr., Clayton, and State Highway Comsn., Jefferson City.

Mo., Charleston.—City will pave Commercial St., from Green to Olive Sts. with asphaltic concrete; L. T. Berthe, Engr.

Mo., Fayette.—Howard County Comms. are reported as considering election to vote on \$700,000 bonds to construct roads.

Mo., Lebanon.—Laclede County Comms. ordered election for Aug. 9 to vote on \$450,000 bonds for road construction.

Mo., Independence.—Jackson County Comms. let contract Kansas Construction Co., Armour Blvd. and Locust St., Kansas City, Mo., at \$15,639 to grade and macadamize 3½ mi. Frank Frick Road.

Mo., Lebanon.—Laclede County contemplates voting on \$450,000 bonds to construct roads. Address County Comms.

Mo., Sedalia.—Pettis County Comms. (C. C. Gentry and others) let contract to Jos. W. Menefee, Sedalia, to construct 7¼ mi. bituminous macadam road; T. O. Stanley, Engr., Sedalia. (Lately noted.)

Mo., St. Louis.—City let contract Skrainka Construction Co., Security Bldg., St. Louis, at \$12,996 to pave Dresden Ave., from Gravois to Eichelberger Sts.

N. C., Durham.—Durham County Comms. contemplates expending \$100,000 to construct concrete roads. Address Comms.

N. C., Graham.—Alamance County Commissioners have plans for construction of road across Alamance County, from Guilford to Orange County lines.

N. C., Raleigh.—Wake County Comms. will construct concrete roads on Central Highway.

Okla., Ada.—City let contract Western Paving Co., 518 Terminal Bldg., Oklahoma City, for paving in Dist. No. 4.

S. C., Paris Island.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., let contract John Griffiths & Son Co., 112 W. Adams St., Chicago, at \$1,666,600 to build roads and walks, install sewer, water elec-

tric and steam systems, construct seawall, piers, etc., at marine barracks.

Tenn., Jacksboro.—Campbell County Highway Comms. will construct 15 mi. of road between Jellico and La Follette; portion of Dixie Highway; bids until August 6; J. N. Miller, Supt.; lately noted to issue \$100,000 bonds to construct roads. (See Machinery Wanted—Road Construction.)

Tex., Dallas.—City let contract Texas Bitulithic Co., 1106 Praetorian Bldg., Dallas, at \$30,737 and \$3106, respectively, to pave Lemmon Ave., from Cole Ave. to Howell St., and from Cole to Cole Ave. (5-in. concrete base, 2-in. surface), and Travis St. from Lemmon Ave. to Bows St.

Tex., Eastland.—Eastland County Comms. contemplates ordering election in special road district to vote on \$50,000 bonds to construct road from Carbon to Long Branch.

Tex., Eastland.—Eastland County Comms., Road District No. 5, voted \$50,000 bonds to construct road from Carbon to Rising Star, via Okra.

Tex., Galveston.—City let contract Uvalde Rock Asphalt Co., Swearingen Bldg., San Antonio, to pave Ave. B from 20th to 23d St., 8000 sq. yds. 2-in. asphalt, and Tremont St. from Ave. B to County Blvd., 35,000 sq. yds. 1-in. asphalt.

Tex., McKinney.—Collin County, Allen Road Dist., voted \$50,000 bonds to construct section of Exall Highway to extend from Denison to Dallas. (Lately noted to vote.)

Tex., San Antonio.—Bexar County Comms. will improve Manton Road, from Somerset Road to Kelly Field; cost \$10,000; J. R. Davis, County Judge.

Tex., Waco.—McLennan County will construct 3 mi. road; day labor; cost \$25,000; M. C. Welborn, County Road Engr.

Va., Richmond.—City road and street contracts, awarded by Administrative Board from May 3 to June 28, include following: To C. M. Henley, granolithic sidewalks on Addison, Elm, 29th and Mulberry Sts., at \$908.80, \$902.20, \$2069.75 and \$3751, respectively; W. J. Anderson, granolithic sidewalks on Broad St., \$17,485.05; C. S. Luck, repairing roadbed, force account; K. L. Black & Co., Richmond, at \$2500, repairing roadbed on Boulevard, 2d Ave. and Highland Park; C. E. Bolling, City Engr. (Previously partially noted.)

W. Va., Charleston.—City will curb and pave portion of Columbia Blvd., Chesapeake Ave., Jackson St., etc.; 3800 ft. curb and gutter; 6300 sq. yds. paving; M. J. McChesney, City Engr., receives bids until July 19; H. R. Wiley, City Engr. (See Machinery Wanted—Paving.)

W. Va., Moundsville.—Marshall County Court has \$50,000 available for construction lately noted 1½ mi. brick and concrete road; open bids August 7; Engr., S. Howe Bonar, Moundsville. (See Machinery Wanted—Road Construction.)

SEWER CONSTRUCTION

Ark., Fort Smith.—City let contract Phoenix Cement Sidewalk Co., Fort Smith, to extend sewer system.

Ark., Stuttgart.—Comms. Sanitary Sewer Improvement Dist. No. 4, J. I. Porter, Chairman, will construct sewers; 20,000 lin. ft. 8-in. pipe, 10,000 lin. ft. 12-in. pipe, 75 manholes and sewage-disposal plant; bids opened July 16.

Fla., Jacksonville.—War Dept. let contract W. P. Richardson of Jacksonville to construct sewer system in connection with development of city for shipbuilders. (See Buildings, Contracts Awarded, Government and State.)

Fla., Miami.—City voted \$175,000 bonds for various improvements: Sewer construction, \$65,000; street paving, \$40,000; bridge over Miami River at Avenue D, \$30,000; bridge over Miami River at 12th St., \$10,000; sidings as part of local municipal railway, between Biscayne Bay and Florida East Coast Ry., \$30,000; previously noted as to vote bonds. Bids are asked until Aug. 1 to construct 13,000 lin. ft. 8 to 18-in. vitrified clay pipe sewers; Chas. W. Murray, City Engr., 213 Townley Bldg. (See Machinery Wanted—Sewer Construction.)

Ga., Southwest Lagrange, P. O. at Lagrange.—City, C. W. Coleman, Mayor, will construct 6, 8 and 10-in. sewers, 20-in. outfall; disposal plant, capacity 350 gals. per min.; G. H. Sargent, City Engr. (Lately noted to vote July 24 on \$63,000 bonds.)

Okla., Avant.—City, W. C. Darby, Mayor, voted \$5000 bonds for storm sewers. (Lately noted to have plans prepared by O'Neil Engineering Co., 1505 Praetorian Bldg., Dallas, Tex.)

Okla., Tulsa.—City let contract Comstock & Hansen, Cedar Rapids, Ia., at \$45,153 to construct sewer system.

S. C., Paris Island.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., let contract John Griffiths & Son Co., 112 W. Adams St., Chicago, at \$1,666,600 to construct sewer system, etc., at marine barracks. (See Road and Street Work.)

Tex., Waco.—City will construct sewage-disposal plant, Imhoff sprinkling system, with daily capacity 7,000,000 gals.; also 8 mi. of 12, 15 and 18-in. vitrified clay and 2 mi. 42 and 48-in. concrete sanitary sewers; John C. Davis, City Secy., receives bids until Aug. 8; P. Trevino, Const. Engr., City Hall, Waco; Rollen J. Windrow, City Engr. Lately noted to have revised plans for extension of sewer system and construction of sewage-disposal plant to cost \$552,000. (See Machinery Wanted—Sewage-Disposal Plant, etc.)

Va., Richmond.—City sewer contracts let to H. L. Driscoll of Richmond by Administrative Board, between May 3 and June 28, include following: Hull St., \$10,394.80; Meadow Bridge Road, \$3965.50, and 21st St., \$5200.05; C. E. Bolling, City Engr. (Previously partially noted.)

SHIPBUILDING PLANTS

Fla., Tarpon Springs.—Wooden Ships.—A. E. Welsh, Enfield, Ill., plans organization \$125,000 company to establish shipyard for wooden vessels.

Fla., Tarpon Springs.—Wooden Ships.—Anclote Shipbuilding Co. organized; build plant to construct wooden schooners; has shipyard site on Anclote River.

La., New Orleans.—Steel Steamships.—Doullut & Williams Shipbuilding Co., W. Horace Williams, Gen. Mgr., 2003 Canal St., has plans and specifications for 1-story 500x100 and 1-story 60x40-ft. wood and metal buildings for shipyard; first improvement to cost \$300,000. (Lately noted organized with \$1,000,000 capital to build plant for constructing 9600-ton steel steamships, etc.)

La., Plaquemine.—Concrete Barges.—James W. Black and others will establish shipyard; 8-way plant; construct cylindrical barges of concrete; plant to include electric-lighting system, sawmill to cut forms and frames, concrete mixer, trolley system, etc.; employ 250 men.

La., Slidell.—Steel Steamships.—Slidell Dry Dock & Shipbuilding Corporation organized; Andrew D. Canulette, Mgr.; build shipyard; site on Bayou Vincent.

Md., Baltimore.—Steel Steamships.—Chas. M. Schwab, Director-General of Emergency Fleet Corporation, Philadelphia, and associates are reported planning construction of shipyard on water front; invest many millions of dollars; build every class of steel steamship.

Tex., Orange.—Wooden Steamships.—Gulf States Shipbuilding Co., Ltd., B. S. Wathen, Prest., Dallas, Tex., will build shipyard to construct wooden steamships; purchased 22-acre site on deep-water channel of Sabine River. (Lately noted contemplating \$800,000 investment for shipyard to build 6000-ton merchant vessels of wood, etc.)

Va., Richmond.—Steel Steamships.—Fabricated Ship Corp., capital \$1,000,000, chartered; A. L. Langley, Prest.; C. P. Royster, V.-P.; R. Grayson Dashiell, Secy.

TELEPHONE SYSTEMS

S. C., Antreville.—Antreville Telephone Co., capital \$1000, inceptd. by R. A. Keaton and Frank A. Carville.

Tex., Midland.—Midland Telephone Co., capital \$50,000, inceptd. by P. and Chris Scharbauer and Bert Homan; operate in Midland, Martin, Andrews and other counties.

TEXTILE MILLS

Ala., Eufaula.—Cotton Products.—Marcella Cotton Mfg. Co., capital \$100,000, inceptd. by Thos. Raby, Jr., A. C. Havens and H. A. White.

Ga., Carrollton.—Cotton Yarn.—Mandeville Mills will build additional mill; equip with 5000 spindles and accompanying machinery.

Ga., Lawrenceville.—Cotton Yarn.—Ploverman Yarn Mills organized; capital \$300,000; succeeds Lawrenceville Mills; has 4200 mule spindles, 448 ring spindles, etc.

Ga., Roswell.—Hosiery.—Richmond Hosiery Mills increased capital from \$10,000 to \$50,000; will add new machinery.

Ga., Gainesville.—Mincey Mfg. Co., lately noted chartered, will manufacture nainsook underwear. (See Miscellaneous Factories.)

N. C., Kings Mountain.—Cotton Yarn.—Mountain View Mill will build addition and install 4000 spindles. (Lately noted organized.)

N. C., Lineolnton.—Hosiery.—Midway Hosiery Mills, chartered by O. F. Lackey, J. S. Carpenter, W. P. Bond and others; capital \$40,000.

S. C., Greenville.—Cotton Yarn.—Okch Mfg. Co. will build mill to spin cotton yarn for Government; preparing plans and specifications. (Lately noted inceptd. with \$25,000 capital by F. H. Cunningham and others.)

Tenn., Chattanooga.—Hosiery.—W. E. Davis (controlling several knit hosiery mills) will establish plant with daily capacity 500 doz. pairs worsted hose; secured building and ordered machinery.

Tex., Alta Loma.—Silk.—Texas Silk Mfg. & Plantation Co. organized; Wm. J. Freeman, Prest., Austin, Tex.; develop 700 acres for silk industry; set 80,000 mulberry trees on 2 tracts of 350 acres each at Alta Loma and Aldine; establish silk cocoonery at Alta Loma; produce raw silk; later spin silk and knit hosiery.

WATER-WORKS

Ala., Florence.—City votes July 22 on \$17,000 bonds to extend water-works and enlarge filtration plant. Address The Mayor. (Lately noted.)

Fla., Bunnell.—Bunnell Ice, Light & Water Co. will erect water tower to furnish additional supply.

Fla., Jacksonville.—War Dept. let contract W. P. Richardson of Jacksonville to construct water works in connection with development of city for ship builders. (See Buildings, Contracts Awarded, Government and State.)

Fla., Pensacola.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., let contract C. A. Born, 25 W. Gordon St., at \$13,175 to extend 8-in. water main and filling. (Lately noted.)

Ga., Augusta.—City will install 2 pumps costing \$19,536; has let contract.

Ga., Greensboro.—City contemplates improvements to water-works and electric-light plant. Address The Mayor.

Ga., Southwest Lagrange, P. O. at Lagrange.—City, G. H. Sargent, City Engr., contemplates installation 4 mi. cast and wrought-iron pipe, and construction 10,000-gal. earth reservoir. (Lately noted to vote July 24 on \$82,000 bonds.)

Md., Brunswick.—City votes August 5 on \$125,000 bonds for water-works. Address The Mayor.

Mo., Hardin.—City defeated \$18,500 bonds to construct water-works. A. Kelson, City Clerk. (Lately noted as planning bond issue.)

Mo., Macon.—City will construct impounding reservoir costing \$50,000; Archer & Stevens, Engrs., 609 New England Bldg., Kansas City, Mo.

N. C., Kinston.—City, R. R. Rouse, Water and Light Commr., will drill well 450 to 500 ft. (See Machinery Wanted—Well-Drilling Machinery.)

N. C., Rocky Mount.—Rocky Mount Mills contemplates installing standpipe 90 ft. high, 20-ft. diam., or a 75,000-gal. tank on 75-ft. trestle; supply water to sprinkler system. (See Machinery Wanted—Tank and Tower; Standpipe.)

Okla., Avant.—City, W. C. Darby, Mayor, voted \$30,000 bonds for water-works. (Lately noted to have plans prepared by O'Neil Engineering Co., 1505 Praetorian Bldg., Dallas, Tex.)

S. C., North Augusta.—City voted \$50,000 bonds to purchase and repair water-works or install new system. Address The Mayor. (Lately noted to vote.)

S. C., Paris Island.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., let contract John Griffiths & Son Co., 112 W. Adams St., Chicago, at \$1,666,600 to construct water system, etc., at marine barracks. (See Road and Street Work.)

Tex., Waco.—Water Comsn. has plans by N. Wenskiold, Engr., Dallas, for 5,000,000-gal. settling basin at filtration plant.

Va., Alexandria.—Alexandria Water Co. will install filtration plant to cost \$50,000 to \$60,000.

WOODWORKING PLANTS

Ala., Coy.—Staves.—Pensacola Coopera Co., Pensacola, Fla., will install plant to manufacture rough oak staves; daily output 10,000; purchased hardwood timber land on Alabama River; staves to be finished at Pensacola plant.

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Ark. Nashville—Boxes.—Allen Lumber & Box Co. will rebuild box factory and sawmill reported burned at \$20,000 loss.
Fla. Bartow—Crates.—Highlands Crate Co., chartered; capital \$50,000; S. C. Inman, Pres.; J. A. Smith, V.P.; C. H. Walker, Secy.
Mo. Kansas City—Bank and Store Fixtures.—Whitcomb Cabinet Co., 14th and Chestnut Sts., erecting lately-noted mill construction building; 1-story; 215x250 ft.; will use present machinery; manufactures bank and store fixtures.
Mo. St. Louis—Sash, Doors and Blinds.—Hafner Mfg. Co. will rebuild burned plant.
N. C. Charlotte—Cooperage.—Gulf Refinery Co. will build cooper shop. (See Gas and Oil Enterprises.)
Tenn. Memphis—Furniture.—Banta Furniture Co., H. S. Banta, Pres., Goshen, Ind., contemplates establishing branch furniture factory.
Va. Norfolk—Doors, Sash, etc.—Norfolk Millwork Co., chartered; capital, \$25,000; B. W. Mott, Pres.; G. L. White, Secy.

FIRE DAMAGE

Ala. Thomas (Sta. Birmingham).—Pratt Land & Improvement Co.'s dwelling; loss \$300.
Ark. Huttig.—Union Sawmill Co.'s plant partially destroyed; loss \$40,000 to \$45,000.
Ark. Nashville.—Allen Lumber & Box Co.'s sawmill and box factory; loss \$30,000.
Ark. Rogers.—White & Higginson's garage; building was owned by J. W. Robinson; loss \$3500.
Ark. Texarkana.—Andrew Bowden's 3 dwellings.
Ga. Atlanta.—Prison for negro women at Fulton County Almshouse; Capt. A. Q. Turner, Supt. of almshouse.
Ga. Jackson.—R. A. Franklin's grist mill.
Ga. Tunnel Hill.—Sam R. Hassler's residence, 4 mi. from Tunnel Hill; loss \$5000.
Ga. Rydal.—T. W. McHugh's store and warehouse; loss \$7000.
Ky. La Center.—Thomas Edwards & Son's tobacco storehouse, loss on building, owned by W. R. Nagel, Jr., Paducah, \$4000 to \$6000.
Ky. Shepherdsville.—G. S. Patterson's store; loss \$30,000.
Ky. Trammel.—Mrs. Minnie Hazelip's store, 2 mi. from Trammel.
La. Monroe.—Seven tenant-houses, owned by M. A. McHenry Estate; J. W. Johnston's barn.
La. Natchitoches.—Natchitoches Elevator; loss \$3000.
Md. Landsdowne.—Michael Wright's barn; loss \$5000.
Miss. Hlwanee.—Meridian Lumber Co.'s mill.
Mo. Kansas City.—Altman Building, occupied by Paris Fashion Shop, Clem B. Altman and others; loss \$50,000.
N. C. Concord.—Five cottages owned by J. W. Cannon.
N. C. Dobson.—W. B. Norman's hotel and store; Baptist Church (address The Pastor); R. C. Lewellyn's residence; loss \$25,000.
N. C. Lake Junaluska.—Junaluska Inn at assembly grounds of Methodist Episcopal Church South; loss about \$160,000. Address The Pastor.
S. C. Timmonsville.—John Du Bose's tobacco barn.
S. C. Anderson.—Anderson County Hospital; loss \$12,000.
Tenn. Alton Park.—Lookout Oil & Refining Co.'s plant at 45th St. and Kirkland Ave.; loss \$25,000 to \$40,000.
Tenn. Chattanooga.—T. C. Betterton's residence on Walden's Ridge.
Tenn. Chattanooga.—S. P. Long's country home on Dallas Rd.; loss \$16,000 to \$18,000.
Tenn. Yuma.—G. M. Cary's store and other business buildings.
Tex. Austin.—Avenue Hotel, owned by Nalle Estate; loss \$12,000.
Tex. Brownwood.—Brooke Smith's business building; loss \$3500.
Tex. Cameron.—R. A. Triggs' residence; loss \$4000.
Tex. Groveton.—Nelms & Platt's building.
Tex. Lockney.—Brewster Hotel.
Tex. Temple.—Jas. M. Allen's residence; J. T. Francis' residence; loss \$7500.
Va. Appomattox.—Wm. Rossiter's 5 buildings.
Va. Danville.—Danville Ice Co.'s feed-

house, owned by Dan River and Riverside Cotton Mill.
Va. King George.—Jas. H. Brown's residence; loss \$3000.
Va. Lynchburg.—John H. Heald Co.'s extract plant; loss \$75,000.
Va. Norfolk.—St. George Hotel.

Va. Staunton.—J. E. Sheets' livery stable.
Va. Winchester.—Snapp Foundry's office and storage house owned by G. L. Robinson; Jenkins & Dunlap's implement establishment; loss \$4000.
W. Va. Whitmer.—Fisher Lumber Co.'s locust mill.

Clarence T. Jones, Hamilton National Bank Bldg., both of Chattanooga. (Lately noted.)
Va. Norfolk—Police Court.—Board of Control will construct additional room to police court; 105x27 ft.; bids opened July 16.

COURTHOUSES

Ky. Elizabethtown.—Hardin County will remodel interior of courthouse; 2 stories; cost \$5000; Brinton B. Davis, Archt., Louisville, Ky.

DWELLINGS

Ark. Little Rock.—W. P. Ragdale will erect residence; 1 story; frame; cost \$4500.
D. C. Washington.—Milburn, Helster & Co., Union Savings Bank Bldg., Washington, prepared plans for \$30,000 residence; hollow tile and stucco; 3 stories.
D. C. Washington.—J. E. Fox, 37 R St. N. E., has plans by Hunter & Bell, 131 G St. N. W., Washington, for dwelling; 28x36 ft.; 2 stories; frame; slate roof; wood floors; cost \$8000; hot-water heat, \$350; construction by owner. (Lately noted.)
Fla. Jacksonville.—T. C. Hobbs will erect 2-story brick-veneer residence; cost \$4500.
Fla. Miami.—R. A. Morrison will erect residence and garage; cost \$2500.
Fla. Miami.—Locke T. Highleyman will erect residence at Point View; 2 stories; 81x95 ft.; flat roof; gymnasium on second floor; marble stairway with iron railing; downstairs finished with white plaster with ornamental plaster ceilings; cost \$25,000; Walter De Garmo, Archt., Miami.
Fla. Miami.—H. F. Fordham will erect 8 tenant dwellings to replace structures previously noted damaged by fire; cost \$2000.
Fla. St. Augustine.—W. Maine Hutson will remodel residence at Water and Joyner Sts.
Fla. St. Petersburg.—H. J. Winchell will erect 3 residences.
Ga. Augusta.—W. R. Roberts will let contract about Aug. 1 to erect residence; 71x40 ft.; brick and hollow tile; hardwood floors; promenade tile terrace and porch floors; tile bathrooms; cost \$15,000; Thos. M. Campbell, Archt., Johnson Bldg., Augusta. (Previously noted.)
Ga. Savannah.—John D. Bunker plans to erect residence and store building. (See Stores.)
Ky. Ashland.—George Hunt has plans by J. M. King, Ashland, for residence; 2 stories and basement; 35x32 ft.; hollow tile walls; pressed brick facing; tile roof; wood floors; steam heat; cost \$3000. (Lately noted.)
Md. Baltimore.—Ida M. Nordenholz has plans by P. E. Beall, 306 St. Paul St., Baltimore, for 2 dwellings 12x29 ft. at 726 School St.
Md. Baltimore.—Frank O. Singer, 600 Equitable Bldg., will erect 8 residences on Chauncey and Calvert Sts.; 2 stories; 26x32 ft.; brick and stone; cost \$28,000; plans and construction by owner; has plans by Jacob F. Gering, 1028 N. Fulton Ave., Baltimore, for 3 two-story dwellings on Brookfield Ave. near Whitelock St., 25x36 ft.; cost, \$2500; also erect 3 two-story houses at 3118-22 N. Calvert St., 25x40 ft., to cost \$2500 each.
Md. Baltimore.—Stephen P. Harwood has plans by Jno. R. Forsythe, 4307 Penhurst Ave., Baltimore, to erect four 2-story dwellings in 4100 block of Park Heights Ave.; brick.
Md. Frederick.—John L. Johnson will expend \$2000 to alter residence; 2 stories; 35x36 ft.; brick and frame.
Md. Hamilton.—Rev. Paul Fox, 126 N. Milton Ave., Baltimore, will erect bungalow on Cowpens Ave.
Mo. Albia.—Wm. Thompson will erect residence; 2 stories and basement; 28x32 ft.; cost \$6000.
Mo. St. Louis.—J. M. Bidwell will erect 2-story dwelling; cost \$2500.
Mo. St. Louis.—Chas. D. Stuker will erect 2-story dwelling; cost \$2500.
Mo. St. Louis.—C. W. Bolt, 5309 Nottingham Ave., has plans by Leo K. Milberger, 5425 California Ave., St. Louis, for residence; 2 stories; 28x35 ft.; brick; cost \$4500; construction by owner.
Okla. Enid.—H. H. Anderson will erect residence; 2 stories and basement; 32x46 ft.; cost \$12,000; R. W. Shaw, Archt., Enid.
Okla. Oklahoma City.—A. B. Nelson, 234 Lee Bldg., will erect number of bungalows; wood; shingle roof; oak floors; cost \$5000 each; day labor. (Lately noted.)
Okla. Okmulgee.—Jack Horner has plans by Smith, Rea & Lovitt, 602 Finance Bldg., Kansas City, for bungalow; 1 story and

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

D. C. Washington.—W. J. Pilling and W. G. Guss have plans by W. Granville Guss, Maryland Bldg., Washington, to erect apartment-house at 10th St. and Massachusetts Ave.; 8 stories and basement; 88x105 ft.; fireproof; slug roof; tile and concrete combination flooring; 1 pipe steam heat; electric lights and elevators; no general contract; subbids opened as work progresses. (Lately noted.)
Fla. Miami.—Cordelia Shipman will erect addition to Bayview Apartments; cost \$7000.
Ga. Augusta.—E. S. McKinley, 1521 Heath St., has plans by Augusta Lumber Co., Augusta, for apartment house at 403 Broad St.; 29x72 ft.; first story, brick; second story, hollow tile; tin roof; wood floors; cost \$6000; lighting, \$90; construction by owner.
Mo. Kansas City.—P. D. Arnold, 1214 E. 26th St., will erect apartment-house; 2 stories and basement; 34x48 ft.; 12 apartments; cost \$10,000; construction by owner.
Mo. Kansas City.—Wm. Giesler is receiving bids through Madore & Field, Archts., 1104 Republic Bldg., Kansas City, to erect apartment-house; brick and stone; 49x48 ft.; 2 stories and basement; 12 apartments; cost \$16,000. (Lately noted.)
Mo. St. Louis.—University Investment Co. will erect apartment-house at 4459-63 Olive St.; 5 stores on lower floor; cost \$100,000.
Va. Richmond.—Reeves & Fleming will repair brick apartment-houses at 830-32 W. Grace St.; cost \$4000 each.

ASSOCIATION AND FRATERNAL

Ala. Florence.—Y. M. C. A. will erect auditorium, gymnasium and restroom; definite plans not determined.
Ga. Atlanta.—Fulton County Masonic Assn. will erect soldiers' clubs at Camp Gordon and Camp Jessup, with swimming pools, etc.; James Fuller Monday, Worshipful Master.
Ga. Augusta.—Knights of Columbus will erect building at Camp Hancock; 60x135 ft.; wood; rubber roof; wood floors; electric lights; cost \$6000; bids opened July 20; Geo. E. Toale, Chmn. Construction Co., Augusta. (Lately noted.)
La. New Orleans.—Y. M. C. A. has plans by Fayrot & Livaudais, Title Guarantee Bldg., New Orleans, for buildings; 4 stories; 45x120 ft.; reinforced concrete and steel; cost \$125,000.
Okla. Tulsa.—I. O. O. F. will erect building; at least 3 stories at present, with provision for additional stories later.
Tenn. Chattanooga.—American Red Cross Assn. will erect canteen building; 3 rooms; wood; cost \$3000; Walter S. Adams is interested. (See Government and State.)
Tex. Wichita Falls.—Knights of Columbus, J. D. Moulder, Local Pres., will erect hall at Call Field.

BANK AND OFFICE

Ark. Benton.—George Hughes will erect bank building for Farmers & Merchants National Bank; brick; gravel roof; wood floors; natural gas heat; gas and electric lights; concrete sidewalks; other details not decided. (See Machinery Wanted—Bank Fixtures—Safe—Vault.)
Fla. Jacksonville.—People's Bank of Jacksonville acquired Adams-St. side of Chamber of Commerce Bldg. and will remodel for banking quarters.
Md. Frederick.—Frederick Saving Institution, 32 N. Market St., will alter bank building; 1 story; 40x100 ft.; will receive bids.
Mo. St. Louis.—Baden Bank will erect addition to bank building; cost \$2500.
Okla. Garber.—Farmers' State Bank will erect addition to building; 1 story; 25x50 ft.; brick; stone trim; cost \$3000; R. W. Shaw, Archt., Enid, Okla.

Va. Richmond.—F. P. Loth will repair office building; brick; cost \$3000.
Va. Richmond.—Federal Reserve Bank is having plans prepared by S.H. Buckler & Fenhagen, 11 E. Pleasant St., Baltimore, for building; 5 stories; brick, steel and concrete.
W. Va. Mullens.—J. H. Hatcher has plans by A. F. Wysong, Princeton, W. Va., for \$10,000 store and office building; 2 stories and basement; 30x60 ft. (See Stores.)

CHURCHES

Fla. Eustis.—Church of Christ has plans by Henry LaPointe, 212½ Twelfth St., Miami, Fla., for parsonage; 40x35 ft.; frame; cypress shingle roof; hot air heat; electric lights; will let contract to local contractor. (Lately noted.)
Ga. Savannah.—First Baptist Church is considering expending about \$40,000 to remodel and improve building. Address The Pastor.
Mo. Kansas City.—Methodist Episcopal Church has plans by Smith, Rea & Lovitt, 602 Finance Bldg., Kansas City, for building at Linwood Blvd. and Olive St.; cost about \$50,000.
Mo. St. Louis.—All Saints' Church, Rev. Joseph McMahon, Pastor, has plans by Jas. S. Lee, 1125 Syndicate Trust Bldg., St. Louis, for 3-story Sunday-school building to replace burned structure; 6 rooms; stone; seating capacity 400; cost \$40,000. (Lately noted.)
Tex. Dallas.—Baylor Medical College, 720 College Ave., will erect additional building; 6 stories; brick; cost \$75,000.
Tex. San Antonio.—Congregation Hebrew Synagogue will erect building; cost \$8000. Address The Rabbi.
Va. Clifton Forge.—Christian Church indefinitely postponed erection of Sunday-school building; 2 stories; 25x73 ft.; brick and stone; composition roof; wood floors; cost \$8000; steam heat, \$500; electric lights, \$100; H. L. Cain, Archt., Richmond. (Previously noted.)
Va. Norfolk.—Twelfth Street Mission will erect building. Address The Pastor.
W. Va. Martinsburg.—Second United Brethren Church will erect building; brick; cost \$29,000. Address The Pastor.
W. Va. Martinsburg.—Pentecostal Church will erect building on Virginia Ave. Address The Pastor.

CITY AND COUNTY

Fla. Arcadia.—City Hall.—Bond Trustees, J. G. King, Secy., receive bids until Aug. 1 to erect city hall building, to contain courtroom, mayor's office, public comfort-room, council-room, clerk's office, marshal's office and engineer's office, fire department and basement for jail; \$17,000 appropriation.
Ky. Richmond.—Jail.—Madison County Fiscal Court receives bids until Aug. 6 to remodel county jail; plans include new cell work on 3 floors, heating plant for jail and residence, reinforced concrete floors for first and second floors, etc.; plans and specifications at office. J. W. Maupin, County Clerk.
Mo. Bellefontaine.—Cottages.—City of St. Louis receives bids at Room 208, New City Hall, until July 30 to erect 3 cottages for boys at Bellefontaine Farms and for installing plumbing, drainage and heating; plans and specifications at office of President, Room 300, New City Hall, St. Louis. (Lately noted to erect 5 buildings.)
N. C. Belmont.—Town Hall.—Town will erect building for town hall, firehouse, assembly hall, lock-up with steel cells, fireproof vaults, steam-heating plant, etc.; reinforced concrete construction. Address The Mayor.
Tenn. Chattanooga.—Auditorium and Soldiers' Club.—City abandoned plan to erect auditorium and soldiers' club; plans by C. E. Bearden, First National Bank Bldg., and

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

basement; 30x42 ft.; frame; shingle roof; cost \$4500.

Okla., Okmulgee.—Mrs. Geo. W. Mitchell is receiving bids through Smith, Rea & Lovitt, Archts., 602 Finance Bldg., Kansas City, Mo., for dwelling; frame and brick veneer; shingle roof; 2 stories and basement; 28x34 ft.

S. C., Greenville.—J. D. Bridges will erect 2 dwellings; cost \$10,000.

Tenn., Johnson City.—Floyd Elkhorn Consolidated Collieries will erect dwellings, etc., in connection with development of coal properties.

Tex., Houston.—Andrew Ness will erect bungalow; stucco; cost \$4000.

Tex., Orange.—Joe Zeto has plans by W. R. Griffin, P. O. Box 863, Orange, Tex., for residence; 5 rooms, bath and porches; cost \$2000.

Tex., San Antonio.—J. M. Oldham will erect 5-room dwelling; cost \$2700.

Tex., San Antonio.—Sam Sugarman will erect 5-room dwelling; cost \$2800.

Tex., San Antonio.—John Hagy will erect 7-room dwelling; cost \$4000.

Va., Norfolk.—Wm. A. Hahn, 119 Law Bldg., will erect 10 bungalows in Chesterfield Heights; 1 story; 20x30 ft.; cost \$3000 each; let contract for plumbing and heating to Wilson & Co., 710 Boush St., Norfolk; Philip B. Moser, Archt., Law Bldg., Norfolk.

W. Va., Fairmont.—Fairmont Investment & Real Estate Co., Fairmont Hotel, contemplates erecting 230 residences; 5 or 6 rooms; 2 stories; frame and stucco; receives bids on 20 in about 2 weeks; cost \$3500 each; probably erect balance by day labor.

W. Va., Fairview.—D. Miller will erect residence; 32x32 ft.; frame; slate roof; cost \$4000; C. H. Snider, Archt., Professional Bldg., Fairmont, W. Va.

W. Va., Kimball.—Harry Bank has plans by Pedigo & Garry, Bluefield, W. Va., for alterations and additions to residence; frame; shingle roof; 30x40 ft.; 2 stories and basement; hot-water heat; ordinary construction; 2 composition floors; probably day labor; cost \$8000.

GOVERNMENT AND STATE

D. C., Anacostia.—Bureau of Yards and Docks, Navy Dept., Washington, opened bids to erect dispensary building; A. W. Griffin, 711 13th St., Washington, is lowest bidder at \$3500. (Lately noted.)

Fla., Pensacola.—Gunnery Instruction, etc. Bureau of Yards and Docks, Navy Dept., Washington, opens bids July 22 to erect gunnery instruction building and mess hall at Pensacola, Santa Rosa Island; estimated cost \$36,000; C. W. Parks, Chief of Bureau.

Fla., Pensacola.—Gunnery School.—Bureau of Yards and Docks, Navy Dept., Washington, will erect gunnery school building and mess hall; cost \$35,000; bids opened July 22.

Ga., Atlanta.—Soldiers' Clubs.—Fulton County Masonic Assn. will erect soldiers' clubs at Camp Gordon and Camp Jessup. (See Association and Fraternal.)

Ga., Augusta.—Association.—Knights of Columbus will erect building at Camp Hancock; 60x135 ft.; wood; rubber roof; wood floors; electric lights; cost \$6000; bids opened July 20. (See Association and Fraternal.)

La., New Orleans.—Ammunition Buildings. Bureau of Yards and Docks, Navy Dept., Washington, will erect 4 ammunition buildings; cost \$4500.

La., New Orleans.—Hospital.—Elks Hospital has plans by R. De Buys, Hibernia Bank Bldg., New Orleans, for 4 buildings; 2 stories; brick; 25x500 ft.; cost about \$300,000. (Lately noted.)

La., New Orleans.—Ammunition Buildings. Bureau of Yards and Docks, Navy Dept., Washington, receives bids until July 29 to construct 4 ammunition buildings to cost \$4500; C. W. Parks, Chief of Bureau.

Md., Baltimore.—Experimental.—War Dept., Washington, D. C., will erect steel frame building on grounds at Johns Hopkins University for experimental purposes; 120x60x65 ft.; construction under supervision of Major Robt. W. Wood, Johns Hopkins University.

Ky., Ashland.—Dwellings.—Government, R. R. Halston, United States Engr., Cincinnati, Ohio, will erect 2 residences at Dam 29, near Ashland; 1½ stories; 28x38 ft.; hollow tile, stucco, concrete or brick; cost \$8000.

Md., Camp Holabird.—Camp Additions.—War Department, Washington, D. C., will erect additions to Quartermaster's Automobile Assembling and Repair Plant at Camp Holabird.

Tenn., Chattanooga.—Canteen.—American

Red Cross Assn. will erect canteen building; 3 rooms; wood; cost \$3000; Walter S. Adams is interested.

Tex., Houston.—Barracks, etc.—Cantonment Division, War Dept., Washington, D. C., will soon let contract to erect additional barracks, etc., at Ellington Field; cost about \$12,000.

Tex., Wichita Falls.—Hall.—Knights of Columbus will erect hall at Call Field. (See Association and Fraternal.)

Tex., San Antonio.—Barracks.—War Dept., Major M. Shaw, Constr. Quartermaster, Mechanical Unit No. 304, will build 40 barracks for 2000 workmen at motor repair plant; also storage building, etc.; total cost \$1,500,000. (See Motor Cars, Garages, Tires, etc.)

Va., Gilmerton.—Concentration Camp.—Cantonment Division, War Dept., Washington, will build concentration camp for U. S. Lumber Depot.

Va., Hampton Roads.—Storehouse, etc.—Bureau of Yards and Docks, Navy Dept., Washington, will build dispensary and dirigible storehouse and other additional construction; C. W. Parks, Chief of Bureau; bids opened July 15.

Va., Hampton Roads.—Magazine, etc.—Bureau of Yards and Docks, Navy Dept., Washington, will erect \$3000 magazine building, \$150,000 quartermaster school and \$2500 platform, derricks and runway.

Va., Norfolk.—Dispensaries.—Bureau of Yards and Docks, Navy Dept., Washington, will build 4 dispensaries at St. Helena; cost about \$44,000.

Va., Petersburg.—Hospital and Storehouses. War Department, Washington, D. C., will erect veterinary hospital and 12 storehouses at Camp Lee; cost \$250,000; Capt. Ira D. Hooks, Constructing Quartermaster.

Va., Rosslyn.—Department of Agriculture. Department of Agriculture, Office Chrmn. of Board of Awards, Washington, D. C., receives bids until July 26 to erect addition to building at Arlington Farms, near Rosslyn.

HOSPITALS, SANITARIUMS, ETC.

D. C., Anacostia.—Bureau of Yards and Docks, Navy Dept., Washington, opened bids to erect dispensary; A. W. Griffin, 711 13th St., Washington, is lowest bidder at \$3500. (See Government and State.)

Fla., De Land.—De Land Sanitarium has donation of 6-acre building site for enlargement of sanitarium.

La., New Orleans.—Elks' Hospital has plans by R. De Buys, Hibernia Bank Bldg., New Orleans, for 4 hospital buildings; cost \$300,000. (See Government and State.)

Okla., Tahina.—Dept. of Interior, Office of Indian Affairs, Washington, rejected all bids to erect cottage at Choctaw-Chickasaw Sanitarium, and will not erect building at this time. (Previously noted.)

S. C., Anderson.—Anderson County will rebuild hospital building noted damaged by fire; wood; slate roof; cost about \$10,000.

S. C., Anderson.—Anderson County Hospital Trustees will rebuild hospital noted damaged by fire at loss of \$12,000.

Tenn., Knoxville.—East Tennessee Sanitarium. E. R. Wade, Pres. of Directors, will erect tuberculosis sanitarium; plans contemplate 2-story main building for administration building, wards, etc., to accommodate 60 patients, also several other smaller buildings; A. L. Chavannes, Chrmn. of Building Commission. (Lately noted.)

Tex., Dallas.—Directors of Baby Camp indefinitely postponed erection of \$30,000 hospital building previously noted; plans by Lang & Wittich, Dallas, call for 2 stories and basement; fireproof; reinforced concrete; stuccoed hollow tile walls; heating plant, laundry and kitchen in basement.

Tex., Lufkin.—Angelina County is having plans prepared by C. H. Page & Bro., Austin, for hospital; cost about \$45,000. (Lately noted.)

Va., Norfolk.—Bureau of Yards and Docks, Navy Dept., Washington, will build 4 dispensaries at St. Helena; cost \$44,000. (See Government and State.)

Va., Norfolk.—City receives bids until July 29 to erect 5 buildings for hospital for contagious diseases; 1 and 2 stories; cost \$20,000. Address The Mayor. (Lately noted.)

Va., Petersburg.—War Department, Washington, D. C., will erect veterinary hospital and 12 storehouses at Camp Lee. (See Government and State.)

HOTELS

D. C., Washington.—Chesapeake & Potomac Telephone Co., Dereulle S. Porter, Division

Mgr., 722 12th St., purchased Alabama Apartment at 11th and N Sts., and Monroe Apartment at 15th and M Sts.; will remodel for hotel for employees.

Md., Baltimore.—Caswell Hotel Co. acquired 4-story building at 20 W. Baltimore St. and will remodel for hotel with lower floor for store.

Mo., St. Louis.—Morris Corn leased old Merchants' Hotel and will expend \$25,000 for improvements, to include installation of bathrooms, elevators, tile lobby, etc.

Tex., Austin.—Joseph Nalle Estate will repair Avenue Hotel noted damaged by fire at loss of \$12,000.

Tex., Orange.—A. C. McFarlan has plans by W. R. Griffin, P. O. Box 863, Orange, for hotel and bathhouse; wood; 3 stories; 20 combination steam and water showers; 22 rooms on 2 upper floors; contract to be let about July 17.

Tex., Orange.—Joe Molley has plans by W. R. Griffin, P. O. Box 863, Orange, for business and hotel building; 2 stories; hollow tile; 4 stores on first floor; 20 rooms, 2 baths, court or roof garden above; contract let about July 15; architect will purchase materials.

W. Va., Clarksburg.—Bartlett Realty Co. has plans by A. Broetnitz, Clarksburg, for remodeling building for store and hotel. (See Stores.)

MISCELLANEOUS

Ark., Little Rock.—Home.—Committee on General Social Welfare, Girls' Industrial School and Boys' Reform School, are interested in erection of home for delinquent girls; cost about \$50,000.

Mo., St. Louis.—Stable.—Polar Wave Ice & Fuel Co. will erect stable; 2 stories; brick; cost \$6000.

Tex., Bryan.—Clubhouse.—Country Club is having plans prepared for clubhouse and lodgekeeper's house; cost \$20,000.

Tex., Orange.—Bathhouse.—A. C. McFarlan has plans by W. R. Griffin, P. O. Box 863, Orange, for bathhouse and hotel building. (See Hotels.)

RAILWAY STATIONS, SHEDS, ETC.

Okla., Tulsa.—Oklahoma Union Railway has plans by D. W. Parish, Chief Engr., for car barn at 103 W. 4th St.; 50x150 ft.; sheet iron; concrete floors; electric lights; cost \$20,000; construction by company forces. (Lately noted.)

Tex., Port Arthur.—Kansas City Southern Ry., J. M. Weir, Chief Engr., Kansas City, Mo., is receiving bids to erect freight depot to replace structure damaged by fire; 1 and 2 stories; 34x150 ft.; stucco on hollow tile; composition roof; cost \$25,000. (Previously noted.)

SCHOOLS

Ala., Altoona.—City plans to issue \$7500 to erect school. Address The Mayor.

Ala., Florence.—City votes July 22 on \$125,000 bonds to erect schools in East Florence and North Florence; M. M. Striplin, Mayor. (Lately noted.)

Ala., Luverne.—Building Committee, F. M. Douglas, Chrmn., lets contract in about 10 days to erect high school; plans and specifications at office City Clerk.

Fla., Astor.—Board of Public Instruction of Lake County receives bids at office Wm. T. Kennedy, Supt., Tavares, Fla., until Aug. 5 to erect 2-story frame school. (See Fla., Tavares.)

Fla., Groveland.—Board of Public Instruction of Lake County receives bids at office Wm. T. Kennedy, Supt., Tavares, Fla., until Aug. 5 to erect 2-story frame school. (See Fla., Tavares.)

Fla., Lisbon.—Board of Public Instruction of Lake County receives bids at office Wm. T. Kennedy, Supt., Tavares, Fla., until Aug. 5 to erect 2-story frame school. (See Fla., Tavares.)

Fla., Tavares.—Board of Public Instruction of Lake County receives bids at office Wm. T. Kennedy, Supt., Tavares, until Aug. 5 to erect 2-story frame schools at Lisbon, Astor and Groveland; plans and specifications at office Superintendent, Umatilla, Fla., after July 15.

Fla., Vero.—Board of Public Instruction of St. Lucie County, Fort Pierce, Fla., has plans by Mark & Sheftall, Jacksonville, for school; 8 classrooms, library, teachers' room, auditorium, with alternate for 2 additional classrooms; bids on reinforced concrete walls and brick walls; wood joists; bids opened July 20; heating and plumbing contracts let later under separate contracts. (Lately noted.)

Ga., La Grange.—City votes July 24 on \$230,000 bonds for schools, etc.; will also expend \$50,000 to enlarge and alter public school in Southwest La Grange; G. H. Burg, City Engr.

Ky., Frankfort.—Kentucky Normal and Industrial Institute, G. P. Russell, Pres., will erect 2-story brick residence; L. L. Oberwarth, Archt., Frankfort; bids opened July 16.

La., New Orleans.—Newman Training School, Peters Ave., receive bids until about August 1 for school building; 2 stories; 100 ft.; cost about \$50,000; Emile Weil, Archt., Whitney-Central Bank Bldg., New Orleans.

Md., Baltimore.—City will expend \$50,000 for repairs to public schools; C. H. Osborne, Inspector of Buildings.

Md., Frostburg.—Board of Education of Allegany County, Cumberland, Md., has plans by C. M. Anderson, 324 N. Charles St., Baltimore, Md., for addition to school; 2 stories and basement; assembly hall and gymnasium 55x95 ft.; brick and wood; composition roof; wood floors; cost and other details not decided; bids opened July 18. (Lately noted.)

Miss., Skene.—Skene Consolidated School District votes July 30 on \$7000 bonds to erect, repair and equip school buildings and teachers' homes. Address District School Trustees.

Miss., Toombs.—School Dist. votes this month on bond issue to erect building; 2 stories; frame; cost \$3500. Address J. O. Thomas, trustee, Toombs, Route 2. (Lately noted.)

Mo., Deepwater.—Board of Education, J. M. Woodard, Secy., is having plans prepared by J. H. Felt & Co., 800 Grand Ave. Temple, Kansas City, Mo., for high school; 1 story and basement; 55x60 ft.; brick; stone trim; composition roof; cost \$16,000.

Mo., Poplar Bluff.—Butler County School Board will erect 3 schools to cost \$1200 each, and repair other buildings; H. O. Harwood, County Supt.

Okla., Chickasha.—Union Graded School District No. 35 issued \$20,000 bonds to erect high school. Address Grady County Board of Education.

Okla., Oklahoma City.—Board of Education will erect school; 2 stories and basement; 8 rooms; brick; stone trim; concrete fireproof construction; composition roof; cost \$55,000; Layton & Smith, Archts., Oklahoma City.

Okla., Okmulgee.—Board of Education, A. F. Boone, Secy., will erect grade school and addition to school; former, 1 story and basement; 112x172 ft.; brick; stone trim; reinforced concrete fireproof construction; cost \$65,000; latter, 2 stories and basement; 28x44 ft.; brick; stone trim; composition roof; cost \$35,000; Smith, Rea & Lovitt, Archts., Finance Bldg., Kansas City, Mo.

Okla., Russell.—Russell Union Graded District No. 2 is receiving bids to erect school building; plans and specifications at office County Supt., Mangum, Okla.

Okla., Taft.—State Board of Public Affairs, Oklahoma City, will erect industrial school; 2 stories and basement; 30x90 ft.; brick; stone trim; composition roof; cost \$30,000; Jewell Hicks, Archt., Durant, Okla.

Okla., Tulsa.—City Board of Education, H. O. McClure, Pres., will erect 2 or more units at Irving Heights school at Easton and Waco Sts.; Celia Clinton school in West Tulsa; Lowell school at Pearl and Council Sts.; Whittier school at Louis and Archer Sts.; with further privilege of erecting 2 or more units at Kendall school at 7th and McCoy Sts.; Longfellow school at 6th and Pearl Sts.; and Emerson school at 10th and North Boston Sts.; separate bids received until July 15 for furnishing material and erection of additions; plans and specifications on file at office of Superintendent of Schools, 6th and Cincinnati Sts.

Tex., Close.—Close Independent School District, L. W. Dalby, Pres., Post, Tex., will erect school; 2 stories and basement; 48x70 ft.; cost \$10,000; R. E. Gilmore, Archt., Post.

Tex., Houston.—City School Board will repair schools in Heights; cost \$11,000.

Tex., Orange.—School Board of West Orange District approved sketches and is having plans prepared by W. R. Griffin, P. O. Box 863, Orange, for 6-room addition to school; interlocking tile with stucco exterior; also remodel present structure, install steam heat, etc. (See Machinery Wanted—Seating.)

W. Va., Burnsville.—School Board has plans by A. F. Wysong, Princeton, W. Va., for \$34,000 high-school building.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

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W. Va., Bridgeport.—Board of Education will erect grade school: 1 story; cost \$3000; frame construction. Address Geo. Titter.

W. Va., Morgantown.—St. Francis Roman Catholic Church, Rev. Stephen Flint, Pastor, has plans by A. Breternitz, 222 Meigs Ave., Clarksburg, for parochial school; brick and hollow tile; 3 stories; 33x50 ft.; cost \$15,000.

STORES

Ark., Earle.—J. M. McBee, Memphis, Tenn., will erect mercantile building; 50x80 ft.; brick; composition roof; cost \$10,000.

Fla., Jacksonville.—S. A. Cook will remodel store front at 123 W. Forsyth St.; also remodel store front at Forsyth and Hogan Sts.; cost \$3000.

Ga., Savannah.—John D. Bunker plans erecting store and residence.

Md., Baltimore.—Baltimore Travers Co., 206 W. Lexington St., leased building at 17 W. Lexington St. and will expend \$10,000 to \$15,000 for improvements.

Mo., Springfield.—W. E. Loley, 202 Baker St., Springfield, prepared plans for store building on Booneville St.; 2 stories; 60x75 ft.; cost \$8000.

Mo., St. Louis.—Stoltman Realty Co. will alter store; cost \$5500.

Mo., St. Louis.—University Investment Co. will erect store and apartment building at 463-65 Olive St.; cost \$100,000. (See Apartment-houses.)

Mo., St. Louis.—Sarah E. Simmons will erect addition to store building; cost \$4300.

Okla., Okmulgee.—Parkinson-Trent Mercantile Co. is receiving bids through Smith, Rea & Lovitt, Architects, 602 Finance Bldg., Kansas City, Mo., to erect store; 2 stories and basement; 60x100 ft.; brick, terra cotta and reinforced concrete; composition roof; cost \$5500.

Tex., Fort Worth.—Dr. G. V. Morton will erect brick store and garage; cost \$18,000.

Tex., Orange.—Joe Molley has plans by W. R. Griffin, P. O. Box 863, Orange, for business and hotel building; hollow tile; 2 stories. (See Hotels.)

Tex., San Antonio.—J. M. Bennett will expend \$8000 to remodel building on St. Mary's St.

Tex., Stamford.—F. C. Smith, 2376 W. 20th St., Los Angeles, Cal., will rebuild store building of Walter L. Orr lately noted damaged by fire.

W. Va., Clarksburg.—Bartlett Realty Co. will remodel building for hotel and store building; 3 stories; 60x50 ft.; A. Breternitz, Archt., Clarksburg.

W. Va., Bluefield.—Graham Gale, Welch, W. Va., has plans by Pedigo & Garry, Bluefield, for store building; 50x85 ft.; brick; composition roof; cement and composition floors; hot-water heat; ordinary wiring; date opening bids or manner of doing work not decided, but probably by day-labor; cost \$20,000.

W. Va., Charleston.—Charles K. Payne acquired site at Quarrier and Virginia Sts.; will erect business block on Quarrier St. with frontage of 70 ft. and containing 3 business rooms on first floor; later plans to erect building on Virginia St.

W. Va., Clarksburg.—Clifford Estate has plans by J. R. Hickman, Clarksburg, for store building; 1 story; 40x62 ft.; cost \$7000.

W. Va., Mullens.—J. H. Hatcher will erect store and office building; 2 stories and basement; 60x100 ft.; brick, terra-cotta and reinforced concrete; for plumbing; A. F. Wysong, Archt., Princeton.

THEATERS

Mo., Kansas City.—Idle Hour Theater is having plans prepared by Madorie & Field, 1104 Republic Bldg., Kansas City, for remodeling theater; 1 story; terra-cotta front; cost \$10,000.

Mo., Joplin.—Gurbek Brothers, 6th and Main Sts., Kansas City, Kan., have plans by Bolter & Bros., 541 Ridge Bldg., Kansas City, for theater on Main St., between 5th and 6th Sts.; cost about \$55,000.

Mo., St. Louis.—M. J. Nash, King Bee Theater, has plans by Kenerly, Stiegmeier & Reukauff, St. Louis, for addition to moving picture theater; 66x18x11 ft.; fireproof; composition roof; concrete floors; addition to present heating and lighting systems; cost \$10,000; bids opened Aug. 1. Address Owner.

Tex., Orange.—E. W. Brown Estate has plans by W. R. Griffin, P. O. Box 863, Orange, for moving-picture theater to be leased to

Liberty Amusement Co., Port Arthur, Tex.; frame; stucco front; 60x150 ft.; construction, under supervision of architect, begun.

W. Va., Mullens.—Wyoming Realty & Improvement Co. let contract to D. J. Phipps, Roanoke, Va., to erect moving-picture theater and garage; 1 story and basement; 60x125 ft.; cost \$25,000; A. F. Wysong, Archt., Princeton, W. Va.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ky., Louisville.—Frank McGrath, 4510 S. 4th St., let various contracts in connection with erection of building for stores and apartments; Thos. J. Nolan, Archt., Courier-Journal Bldg., Louisville. (See Stores.)

Mo., Joplin.—Ralph P. Camp, Springfield, let following contracts in connection with erection of 2 apartment buildings at 6th and Myers Aves.; 3 stories; 42x150 ft.: Roofing, Borham Roofing Co., Joplin; heating and plumbing, Reynolds Plumbing & Heating Co.; painting, Charles Williams; electric wiring, Ford Brass Co.; all of Springfield, Mo.

Mo., St. Louis.—Francis Wayland Building Co., 400 De Baliviere Ave., St. Louis, has contract to erect store and apartment-house on Oliver St.; cost \$100,000; H. J. Harker, Archt., Sawyer Bldg., St. Louis. (See Stores.)

Mo., St. Louis.—University Investment Co. let contract to Francis Wayland Building Co., 400 De Baliviere Ave., St. Louis, to erect proposed apartment-house on Delmar Ave.; 4 stories and basement; 80x125 ft.; cost \$150,000; H. J. Harker, Archt., Sawyer Bldg., St. Louis.

Mo., St. Louis.—Wm. F. Rodenberg let contract to Ideal Construction Co., 5891 Etzel St., St. Louis, to erect 3 apartment-houses on McCausland St.; 3 stories; 32x53 ft.; also let contract for plumbing to McLunie Co., 317 De Baliviere Ave., and painting to Sam Stahlhut, 4756 De Baliviere Ave., both of St. Louis.

Va., Norfolk.—Dr. C. W. Doughtie let contract to J. A. Turpin, 422 Thirty-eighth St., Norfolk, to erect apartment-house; 4 suites; 2 stories; cost \$3400; let contract to Behn Roofing Co., Norfolk, for roofing. (Lately noted.)

ASSOCIATION AND FRATERNAL

D. C., Washington.—War Work Council, Y. M. C. A., 347 Madison Ave., New York, let contract to H. C. Ball, District National Bank Bldg., Washington, to erect dormitory for soldiers, sailors and marines at Liberty Hut; 350x215 ft.; frame; rubberoid roof; board floors; stoves; A. M. Allen, Archt., 347 Madison Ave., New York. (Lately noted.)

BANK AND OFFICE

Ala., La Fayette.—Stanley & Singer let contract to W. L. Wynn and E. A. Zable, La Fayette, to erect office and storage building on Montgomery St.; 2 stories; 60x100 ft.; tin roof; heart rift pine floors; cost \$17,500; heating, \$500; lighting, \$250; sidewalks, \$500; elevator, \$250; E. A. Zable, Archt., La Fayette. (Lately noted.)

Mo., St. Louis.—Adams Express Co., Wells Fargo & Co., express, American Express Co. and United States Express Co. let contract to Fruin-Colnon Construction Co., Merchants Laclede Bldg., St. Louis, to alter 5 express buildings; 2 stories; cost \$3000; J. M. Dunham, Archt., Chemical Bldg., St. Louis.

N. C., High Point.—Commercial National Bank let contract to remodel and enlarge bank building; install vaults, safety deposit boxes, new fixtures, etc.

Va., Richmond.—Pollard & Bagby, Agts., have plans by and let contract to Henry T. Barnham, Constr. Engr., Chamber of Commerce Bldg., to remodel building at 6th and Main Sts.; will install partitions, radiators, plumbing fixtures, vault, floor finishing and decorations.

CHURCHES

Mo., Creve Coeur.—St. Monica Parish, Rev. J. F. Hoeschen, Pastor, let contract to Frank Peters, St. Louis, to erect school building. (See Schools.)

Mo., Fenton.—St. Paul's Congregation let contract to Cudmore Construction Co., International Life Bldg., St. Louis, to erect building; 2½ stories; 42x101 ft.; cost \$50,000.

Mo., Malta Bend.—Methodist Episcopal Church let contract to D. M. Wall, 2617 Agnes Ave., Kansas City, Mo., to erect building; 2 stories and basement; 50x55 ft.; cost \$18,000; let heating contract to Paul Groe-

WAREHOUSES

Mo., St. Louis.—Republic Metal & R. Co. will erect addition to warehouse; cost \$2900.

Mo., St. Louis.—Hafner Mfg. Co. will repair burned warehouse; mill construction; elevator; cost \$25,000.

Mo., St. Louis.—Geo. D. Hall Real Estate Co. will not erect warehouse and loft building lately noted.

schel, Marshall, Mo., and masonry to Chas. McCleary, 2112 Linwood Blvd., Kansas City; J. H. Felt & Co., Architects, Kansas City. (Lately noted.)

CITY AND COUNTY

Fla., St. Augustine.—Storage.—St. Johns County Commrs. let contract to Bell & James, St. Augustine, to erect garage and storage building on jail property; 1 story; 40x40 ft.; concrete block and frame; frame roof with fireproof covering; electric lights; cost about \$3000; plans by C. E. Henderson, County Engr., St. Augustine. (Lately noted.)

Ky., Louisville.—Lockers and Showers.—Board of Park Commrs., Harry Smith, Business Director, 601 Columbia Bldg., let contract to General Construction Co., Inter-Southern Bldg., Louisville, to erect locker and shower-bath building in Shelby Park; 1 story; 40x133 ft.; wood; ready roofing; concrete floors; cost \$11,000; electric lights, \$500; Joseph & Joseph, Architects, Atherton Bldg., Louisville.

DWELLINGS

Ala., Florence.—Mrs. J. C. Conner has plans by and let contract to Smith & Bobbitt, Florence, to erect three 2-story brick-veneer dwellings, one on Court St. and two on Seminary St.; 2 stories; composition shingle roofs; hardwood floors; cost \$6000 each; heating, \$400 each.

Ark., Little Rock.—Horace Chamberlain let contract to S. R. Byarby, Little Rock, to erect residence; 2 stories; brick veneer; 9 rooms and sleeping porch; Wm. Dill, Archt., Little Rock.

Fla., Coconut Grove.—John Bindley let contract (on unit basis) to John B. Orr, Miami, Fla., to erect residence; fireproof construction; tile roof; concrete floors; cost about \$75,000; Kiehnel & Elliott, Architects, Pittsburgh, Pa. (Previously noted.)

Fla., Jacksonville.—Government let contract to W. P. Richardson, Jacksonville, to erect dwellings, etc., for shipworkers; cost \$750,000. (See Government and State.)

Ga., Augusta.—L. M. Burrus let contract to A. M. Banks, Augusta, to erect residence; 2 stories; frame; cost \$7425. (Lately noted.)

Ga., Augusta.—J. A. Outz let contract to A. M. Banks, Augusta, to erect frame bungalow; composition shingle roof; tile porch and bathroom floors; cost \$7800; Thos. M. Campbell, Archt., Johnson Bldg., Augusta.

Ga., Augusta.—D. M. Lyon, 500 Block Broad St., let contract to Palmer-Spivey Construction Co., Augusta, to erect residence; 40x40 ft.; frame; composition roof; wood floors; hot-air heat; cost \$10,262; Thos. M. Campbell, Archt., Johnson Bldg., Augusta. Address contractor. (Lately noted.)

Ga., Savannah.—Mrs. Norine Bochman let contract to W. T. Hussey, Savannah, to erect 2-story residence; frame; cost \$5000.

Md., Baltimore.—Northwest Real Estate Co. has plans by and let contract to Geo. R. Morris, 533-45 Title Bldg., Baltimore, to erect 4 dwellings on north side of Ashburton St., east of Garrison Ave.; 2½ stories; 27x28 ft.; frame; slate roofs; cost \$3500 each. (Mr. Morris lately noted to erect these structures.)

Mo., Plattsburg.—Mrs. C. R. Young let contract to T. E. Smith, 3136 Summit St., Kansas City, Mo., to erect residence; 2 stories and basement; 28x52 ft.; Smith, Rea & Lovitt, Architects, Kansas City, Mo.

Mo., Liberty.—George F. Hall let contract to Mollinger Construction Co., 108 Garfield Ave., Kansas City, Mo., to erect residence; 2 stories and basement; 100x35 ft.; frame; shingle and tin roof; oak floors; cost \$25,000; Madorie & Field, Architects, Kansas City, Mo. Address contractor. (Lately noted.)

Mo., St. Louis.—Gustav Setz let contract to J. F. Rupp Building Construction Co., St. Louis, to erect residence at 3314 Russell Ave.; 4x29 ft.; stone, brick and lumber; slate roof; wood floors; cost \$9000; heating,

\$1000; lighting, \$200; E. Priesler, Archt., St. Louis; all contracts let.

Mo., St. Louis.—H. P. Schroeder let contract to Fred. E. A. Dorr & Son, 1004 S. Vandeventer St., St. Louis, to erect residence; 2 stories; 25x30 ft.; cost \$6000. (Lately noted.)

Tex., Fort Worth.—N. C. Randal, 1701 Jennings Ave., has plans by and let contract to Ira L. Miller, 3100 Avenue H, Polytechnic Heights, Fort Worth, to erect residence; 32x58 ft.; 7 rooms; wood; shingle roof; hardwood floors throughout with subfloors; gas heat; electric lights; cost \$3000. (Lately noted.)

Va., Portsmouth.—Leon Holmes let contract to W. H. Watkins, Portsmouth, to erect 2-story frame dwelling; metal roof; cost \$2200.

GOVERNMENT AND STATE

Ala., Montgomery.—Barracks, etc.—War Department, Washington, D. C., will erect three 2-story barracks and mess hall for use of bakery training school; cost \$35,000; also erect magazine for engineers; brick; Capt. M. G. McDonald, Camp Construction Quartermaster; Algernon Blair, Contr., Montgomery.

Ark., Little Rock.—Warehouse, etc.—War Department, Washington, let contract to Geo. W. Donaghey, Little Rock, to erect headquarters supply warehouse for aviation fields in West Tennessee, Arkansas, Oklahoma and Northern Texas; warehouse building 400x800 ft.; barracks to accommodate 500 privates and non-commissioned officers; quarters for officers and officers' club; initial expenditure \$500,000; probable ultimate expenditure \$1,000,000.

D. C., Anacostia.—Magazine.—Bureau of Yards and Docks, Navy Dept., Washington, let contract to L. E. Breuninger & Son, Colorado Bldg., Washington, to erect magazine building; cost \$4350. (Lately noted.)

D. C., Washington.—Coast Survey.—Coast & Geodetic Survey, Dept. of Commerce, R. L. Farris, Supt., let contract at \$94,800 to Willis Egelhof Co., Inc., 101 Park Ave., New York, to erect buildings.

D. C., Washington.—Association.—War Work Council, Y. M. C. A., 347 Madison Ave., New York, let contract to H. C. Ball, District National Bank Bldg., Washington, to erect dormitory at Liberty Hut; 350x215 ft.; frame; rubberoid roof; board floors; A. M. Allen, Archt., 347 Madison Ave., New York. (See Association and Fraternal.)

Fla., Jacksonville.—Dwellings, etc.—Government let contract to W. P. Richardson, Jacksonville, to erect houses, etc., for shipworkers at cost of \$750,000; 165 buildings; cottage and bungalow type; plans also include streets, sewers, water, lights and gas.

Ga., Brunswick.—Barracks.—Government let contract at about \$20,000 to G. A. Miller, Tampa, Fla., to build 2 barracks for soldiers guarding shipbuilding plants, to accommodate 100 and 60, respectively.

Ga., Savannah.—Barracks.—War Department, Washington, D. C., is reported to have let contract to Carson Construction Co. to erect barracks at Fort Screven to accommodate 4000 to 5000 men.

Va., Richmond.—Supply Depot.—Cantonment Division, War Dept., Washington, D. C., let contract to J. T. Wilson Co., Fulton St., Richmond, to erect building for general supply depot for Signal Corps; cost \$40,000; also let contract to J. T. Wilson Co. to erect building for balloons for Signal Corps; cost \$42,000; cost plus percentage.

S. C., Paris.—Barracks, etc.—Bureau of Yards & Docks, Navy Dept., Washington, let contract to J. Griffiths & Sons Co., 112 W. Adams St., Chicago, to erect extension to marine barracks, build roads, walks, sewers, water, electric and steam systems, construct seawall, piers, etc.; cost \$1,666,600. (Lately noted.)

HOSPITALS, SANITARIUMS, ETC.

Md., Baltimore.—Mercy Hospital, Calvert & Saratoga Sts., let contract to Frankie Bros. & Haigley, 18 Clay St., Baltimore, to alter building at Calvert & Pleasant Sts. for convalescent building; cost \$60,000; Frank J. Baldwin, Archt., Professional Bldg., Baltimore. (Lately noted.)

Md., Baltimore.—South Baltimore Eye, Ear, Nose and Throat Hospital, 1213 Light St., let contract to Henry Pierson & Sons, 1000 Olive St., Baltimore, to erect addition to building.

Mo., Moberly.—I. G. Laughlin Nourishment Co., Kirksville, Mo., let contract to N. Wilbide, Booneville, Mo., to erect hospital annex; 2 stories and basement; 40x70 ft.;

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cost \$26,000; Ludwig Abt, Archt., 118 Fourth St., Moberly.

W. Va., Huntington.—A. K. Kessler let contract to V. G. May, 217 W. Sixth Ave., Huntington, to erect operating room; 1 story; 30x50 ft.; cost \$10,000; W. B. Smith, Archt., 709 R. & P. Bldg., Huntington. (Lately noted.)

MISCELLANEOUS

Fla., Orange City.—Community Building.—Albert Dickinson, Chicago, let contract to J. H. Bates Co. to erect library and community building; hollow tile walls and stucco exterior; green Spanish tile roof; mechanical heating and ventilating; cost \$16,500; Francis M. Miller, Archt., P. O. Box 201, De Land, Fla. (Previously noted under City and County.)

Ky., Louisville.—Cattle Pens.—Kentucky State Fair Assn., Mat S. Cohen, Comr. of Agriculture, let contracts to erect cattle pens to accommodate 250 head.

Okl., Oklahoma City.—St. Anthony Hospital let contract to Neubauer & Gay, Oklahoma City, to erect hospital building; 50x68 ft.; mill construction; slate roof; tile hall and bath floors; heating and lighting from present plant; cost \$16,000; plans by Brother Leonard. Address contractors. (Lately noted.)

SCHOOLS

D. C., Washington.—Dist. Commrs. let contract at \$2997 to W. E. Mooney, Evans Bldg., Washington, to erect pavilion at Phelps School on Vermont Ave. (Lately noted.)

Fla., Concord.—Board of Public Instruction of Gadsden County let contract to L. W. Cooper, Quincy, Fla., to erect school building; 2 stories; 33x87 ft.; ordinary construction; frame; shingle roof; ordinary floor construction; stoves; cost \$5500; Mark & Sheffall, Archts., Jacksonville. (Lately noted.)

Fla., Gulfport.—County School Board, Clearwater, Fla., let contract at \$7029 to R. T. Joughin & Co., Tampa, Fla., for plumbing for school addition. (Lately noted.)

Fla., Tampa.—Hillsborough County School Board let contract at \$2894 to Gary Novelty Works, Tampa, to erect school in Gillett School Dist. No. 13. (Lately noted.)

Mo., Atherton.—School District No. 4, F. W. Meyer, Secy., let contract to Chris Yetter, Independence, Mo., to erect school; 1 story and basement; 30x60 ft.; cost \$7000; W. E. Schrage, Archt., 43 E. 32d St., Kansas City, Mo.

Mo., Carthage.—Board of Education let contract to erect grade school; 1 story and basement; 48x67 ft.; cost \$12,000; J. A. Prather, Archt., Carthage.

Mo., Creve Coeur.—St. Monica Parish, Rev. J. F. Hoeschen, Pastor, let contract to Frank Peters, 2014 E. Warne Ave., St. Louis, to erect school and parish hall; 2 stories and basement; 41x81 ft.; brick; composition roof; wood floors; cost \$15,500; H. P. Hess, Archt., 4811 Cote Brillante Ave., St. Louis. Address contractor.

Okl., Bristow.—City let contracts as follows for erection of proposed school: General contract, at \$32,275, to Leslie C. Martin; plumbing, A. L. Colaw; both of Bristow; heating equipment, H. C. Fitzman, Oklahoma City; unit system; main or auditorium and gymnasium building 2 stories; schoolroom portion 1 story.

Okl., Kiefer.—Board of Education let contract to H. M. Fielding, Guthrie, Okla., to erect high school; 2 stories; brick, reinforced concrete and steel; cost \$118,000.

Okl., Shawnee.—Oklahoma Baptist University let contract to C. E. Higgin, 1115 Kickapoo St., Shawnee, to erect gymnasium and boys dormitory; 60x110 ft.; fireproof; gravel roof; concrete slab and wood floors; cost \$30,000; lighting, \$496; A. C. Davis, Archt., Shawnee. (Lately noted.)

Okl., Miami.—Ottawa County Board of Education let contract to R. D. Pollard, Claremore, Okla., to erect school; 2 stories; 60x100 ft.; cost \$66,000. (Previously noted.)

Okl., Sulphur.—State let contract to G. C. Frier, Sulphur, to erect dormitory and industrial building; 55x95 ft.; 2 stories and basement; brick walls; concrete columns, floors and roof slabs; tar and gravel roof; cement floors; steam heat from central plant; cost \$38,570; Jewell Hicks, Archt., Oklahoma City. (Lately noted.)

Tex., Houston.—School Trustees of Spring Branch School No. 27 let contract at \$3850 to Henry Boutele to erect 2-room hollow-tile school building.

Tex., Well Valley.—Cochise County, San

Angelo, Tex., let contract to erect \$5000 school in Well Valley near Eden.

Va., Freeling.—School Trustees let contract to D. G. Kelley, Clintwood, Va., to erect graded school.

W. Va., Bruceton Mills.—Board of Education of Grant District, J. E. Wolfe, Pres., let contract to Geo. W. Bise to erect school; 2 rooms.

W. Va., Huntington.—Board of Education let following contracts to remodel Oley School and erect addition connecting Jones School with Central Junior High School: General contracts, Henry Persun, Huntington, at \$49,100; heating, Columbus Heating & Ventilating Co., Columbus, O., at \$9564; hardware, A. F. Thompson Mfg. Co., Huntington, \$278; electric work, McKellar Electric Co., Huntington, \$663; Meador, Sweeney & Handloser, Archts., 917 Robson-Pritchard Bldg., Huntington. (Lately noted.)

STORES

Ala., Sheffield.—Phillip Oilm and I. Kreisman let contract to Slosser Contracting Co. to erect 2-story brick and stone store building; cost \$35,000.

D. C., Washington.—H. M. Markley, Sunbury, Pa., let contract to Wm. Beahm, 617 14th St. N. W., Washington, to alter store building at 917 F St. N. W.; tin roof; oak floors on old joists; vapor heat; electric lights; granolithic sidewalks; cost \$5000 to \$6000; Jas. E. Cooper, Archt., 900 B St. S. W., Washington. Address owner or contractor. (Lately noted.)

D. C., Washington.—James O'Donnel let contract to D. E. Nichol, 4324 Georgia Ave. N. W., Washington, to remodel store building; 40x100 ft.; wood joist floors construction; cost \$5000; steam heat, \$1000; Frank G. Pierson, Archt., 918 Washington L. & T. Bldg., Washington. (Lately noted.)

Ga., Metter.—W. T. Wright is reported to have let contract to N. M. Ogden, Metter, to erect 5-story building.

Ky., Louisville.—Frank McGrath, 4510 S. 4th St., let following contracts in connection with remodeling store and flat building at 7th St. and Broadway; 3 stores and 6 apartments: Carpentry, Remi Jeunesse; plumbing, M. J. Duffy; electric work, Cannon Electric Co.; all of Louisville; Thos. J. Nolan, Archt., Courier-Journal Bldg., Louisville.

Md., Frostburg.—Frostburg Furniture Co. let contract to Olin Gerlach, Frostburg, to erect store building to replace burned structure; 2 stories; 35x165 ft.; cost \$25,000.

Mo., Kansas City.—J. F. Kendig let contract to H. T. Knapp, 58 Orchard St., Kansas City, to erect business building; cost \$7000.

Mo., Kansas City.—T. W. Sterritt let contract to J. R. Vansant Construction Co., Dwight Bldg., Kansas City, to remodel business building; 5 stories and basement; 110x45 ft.; brick; tar and gravel roof; wood joists and maple floors; cost \$15,000; Smith, Rea & Lovitt, Archts., Kansas City.

Mo., Kansas City.—H. J. Ernst let contract to Geo. E. Bowling & Son, 907 Sharp Bldg., Kansas City, to erect business building; 2 stories and basement; 68x132 ft.; mill construction; tar and gravel roof; concrete and tongue and groove floors; electric lights; cost \$35,000; steam heat, \$3000; Kimble elevator, \$1800; R. J. Raney, Archt., Union Station, Kansas City.

Mo., Kansas City.—Keene R. Dudley let contract to C. C. Peterson, 4209 Campbell St., Kansas City, to remodel store building at 35th and Woodland Sts.; 1 story and basement; 25x75 ft.; also let other contracts as follows: Electric wiring, O. K. Electric Co.; roofing, Builders' Roofing Co.; masonry, Martin Goldbeck; all of Kansas City; J. H. Felt & Co., Archts., 809 Grand Avenue Temple, Kansas City.

Mo., Springfield.—Ada McClure let contract to W. E. Burgins, Springfield, to remodel store building; 1 story; 20x80 ft.; cost \$4000; let contract for plumbing to G. Hinderson, Springfield.

Mo., St. Louis.—A. V. Reyburn let contract to A. H. Steel, 813 Chestnut St., St. Louis, to alter 2 store buildings, 402-10 N. 9th St. and 825 Locust St.; cost \$39,000.

Mo., St. Louis.—Concordia Publishing Co. let contract to H. P. Luehrmann, 342 Iowa Ave., St. Louis, to alter store, and to Arthur Maier, 3569 S. Springfield St., St. Louis, for plumbing; 3 stories; cost \$5000; Chas. F. May, Archts., 408 Merchants' Laclede Bldg., St. Louis.

Mo., St. Louis.—Francis Wayland Building Co., 400 De Baliviere Ave., St. Louis, has contract to erect store and apartment-house on Oliver St., near Taylor St.; 5 stories and

basement; 54x152.6 ft.; cost \$100,000; H. J. Harker, Archt., Sawyer Bldg., St. Louis.

Mo., St. Louis.—John Nooter Boiler Works, 1400 S. 2d St., let contract to Ward Construction Co., 1513 Olive St., St. Louis, to erect mercantile building; 1 story; 100x127 ft.; cost \$25,000; P. J. Bradshaw, Archt., St. Louis.

N. C., Charlotte.—Little-Long Co. let contract to J. A. Gardner, Charlotte, to remodel department store; cost \$10,000.

N. C., Charlotte.—Little-Long Co. let contract to J. A. Gardner, Charlotte, to reconstruct department store; building owned by Mrs. Thomas Moore, Richmond, Va.; extend 10 to 12 ft.; provide mezzanine balcony; remodel interior; alter front, etc.; cost \$10,000; Louis Asbury, Archt., Charlotte.

N. C., Gastonia.—Fred L. Smyre will alter store building on W. Main Ave.; install glazed terra-cotta front with plate glass and copper bar setting; metal ceiling; let contract to W. Fred Casey, Charlotte, N. C., representing Atlantic & Atlanta Terra-Cotta Co., New York and Atlanta, for terra-cotta;

also let contract for steel and iron work; construction begins in 30 to 60 days.

THEATERS

Mo., St. Louis.—Chas. A. Pittman let contract to F. W. Folk, St. Louis, to erect moving picture theatre; 1 story; cost \$10,000.

Va., Richmond.—R. D. Craver and F. W. Brothers, Charlotte, N. C., let contract to John T. Wilson, Inc., Mutual Bldg., Richmond, for vaudeville theater; cost \$40,000; Carneal & Johnston, Archts., Chamber of Commerce Bldg., Richmond. (Lately noted.)

WAREHOUSES

Ala., La Fayette.—Stanley & Singer let contract to W. L. Wynn and E. A. Zable, La Fayette, to erect storage and office building; 2 stories; 60x100 ft.; tin roof; hammer rift pine floors; cost \$17,500; E. A. Zable, Archt., La Fayette. (See Bank and Office.)

W. Va., Charleston.—Ruffner Brothers has plans by and let contract to David Dick, Masonic Temple Bldg., Charleston, to erect warehouse; 2 stories; 60x120 ft.; cost \$15,000.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

"WANTS"

Automobiles.—John W. Wilson, Middletown, Md.—Prices on automobiles.

Bank Fixtures.—George Hughes, Benton, Ark.—Prices on bank fixtures, safe, vault, etc.

Bags (Paper).—P. O. Box 278, Elizabethton, Tenn.—Prices, f. o. b. Elizabethton, on 10,000 paper meal bags, capacity equal to 18-in. diam., 40 in. deep; to hold 100 lbs. material for shipment.

Boiler.—See Engines (Hoisting).

Boilers.—Wm. Ficker, 2501 Port St., New Orleans, La.—Prices on boilers; for installation (new) plant of Southern Chemical & Dye Co., 316 Godchaux Bldg., New Orleans.

Boilers.—Chas. A. McLean, 412 Citizens' Bank Bldg., Norfolk, Va.—Several boilers; 150 H. P.; high pressure; also 90 to 100 H. P. of standard make; particulars and price in replies.

Boilers.—Holman Co., 18 Broadway, New York.—Second-hand Babcock & Wilcox longitudinal drum hand-fired 150 to 200 H. P. boilers. State price, condition and where can be inspected.

Bottles.—Newberry Lumber Co., Newberry, S. C.—Addresses of bottle manufacturers.

Bottles (Water; Glass).—Keith Lumber Co., Voith, Tex.—Prices on new or second-hand green-glass water bottles, ½, 1-gal. and 5-gal. capacities.

Boxes (Paper).—Newberry Lumber Co., Newberry, S. C.—Addresses of manufacturers of paper boxes.

Boxes (Paper).—Dr. Geo. S. Stone, Punta Gorda, Fla.—Addresses of manufacturers of paper boxes (cartons) for granulated fish products.

Bricks (Paving).—Jamison & Morris, Greenville, S. C., wire Manufacturers Record.—We want enough vitrified paving bricks, 1½ or 2 in. thick, to lay 3000-ft. floor surface in packing-house.

Bridge Construction.—Caroline County Commrs., Bennett Todd, Clerk, Denton, Md. Bids until July 23 to construct reinforced concrete bridge over Choptank River on road leading from Goldsboro to Delaware State line, known as Sandy Island Bridge; span, 222 ft.; width of driveway, 20 ft.; total yardage in bridge, 791 cu. yds.; plans on file with and proposals obtainable from State Roads Commn., Garrett Bldg., Baltimore; Harry Waldorf, Roads Engr.

Bridge Construction.—Macon County Commrs., A. H. Perry, Clerk, Oglethorpe, Ga.—Bids to construct bridge across Flint River, between Oglethorpe and Montezuma, on Dixie Highway; Contract No. 1 consists of 3 steel spans 120 ft. long, 630 cu. yds. reinforced concrete, 3600 lin. ft. wood piling; Contract No. 2 includes 1540 lin. ft. concrete approaches, 2629 cu. yds. reinforced concrete, 467,318 lbs. steel, 4000 lin. ft. wood piles; estimated cost \$122,000; Garrett & Slack, Engrs., Montgomery, Ala.

Cars (Ore).—W. J. Frees, 913 Littlefield Bldg., Austin, Tex.—Prices on ore cars. (See Locomotive.)

Cartons.—See Boxes (Paper.)

Casing.—See Well-drilling Machinery.

Chemicals.—Columbette Reduction Co., Charlotte, N. C.—Prices on commercial grades of following chemicals: Caustic soda, 76 per cent. sulphuric acid, 66° Be.; hydrofluoric acid, 48 per cent.; ammon. polysulphide; sodium bisulphite; potassium carbonate, and potassium fluoride; quantities, 500 to 6000 lbs.; for plant of Oliver Quartz Co., Charlotte. (See Laboratory Equipment.)

Clayworking (Tile) Machinery.—J. Wilfred Galdry, 2300 Calhoun St., New Orleans, La.—Data and prices on machinery (including kilns) and molds for manufacturing earthen or clay tiles; prefers second-hand machinery.

Clutch (Friction) and Transmission.—Boston-Arkansas Mining Co., 1308 Parkison Bldg., Okmulgee, Okla.—Prices on friction clutch and transmission to handle 100 H. P. 80 ft. from power to line shaft.

Compressor (Air).—Boston-Arkansas Mining Co., 308 Parkison Bldg., Okmulgee, Okla.—Prices on belt-driven compressor, capacity 1200 to 1600 ft. air.

Compressor (Air).—Elm Grove Cotton Mills, Lincoln, N. C.—Prices on air compressor to force water from well to residence and mill building.

Cars (Locomotive).—Roy C. Whayne Supply Co., 318 W. Main St., Louisville, Ky.—Gasoline-driven, standard-gauge cars, capable of pulling 1 or more trailers for passenger service; maximum grade 1 per cent.

Cookers and Driers.—Franklin Grain Products Co., E. A. Hoffmann, Mgr., Frankfort, Ky.—Prices on cookers and driers to manufacture maltose, corn oil and cattle feed.

Cotton Products.—Manishanker S. Rawal, Bombay, India.—To represent manufacturers of remnants; fents; cut pieces; jobs of cotton piece goods of various lines; second-hand clothing.

Culvert (Pipe).—See Road Construction.

Drainage.—Manatee County Commrs., Wm. M. Taylor, Clerk, Bradentown, Fla.—Bids until Aug. 5 to construct Pearce Sw-Grass and Oneco drains and laterals; plans, profiles and specifications on file with County Commrs.

Driers.—See Cookers and Driers.

Drill.—J. F. Stroud, Main and E. Pecan St., Lockhart, Tex.—Prices on power drill for blacksmith shop and garage.

Electrical Equipment.—See Mining and Crushing Machinery.

Electrical Supplies.—See Machinery, etc.

Elevators and Lifts.—Treasury Dept., Supervising Architect's Office, Washington, D. C.—Open bids July 31 for installation electric passenger elevator and 2 electric coil lifts in United States Assay Office Bldg., New York; specifications, etc., on application.

Engines (Hoisting).—Chas. T. Lehman, 1921 Powell Ave., Birmingham, Ala.—Dealers' prices on two 9x10-in. or 10x12-in. D. C., D. F. D. hoisting engines, complete with boiler and double-winch heads.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

July 18, 1918.]

Engines (Corliss).—General Utilities Co., 722 Paul-Gale Greenwood Bldg., Norfolk, Va.—Prices on 200 H. P. Corliss engine.

Engine (Gasoline).—See Unloader.

Engines (Crude Oil).—Benness Salt Co., Box 536, New Orleans, La.—Prices on crude oil engines. (See Mining and Crushing Machinery.)

Engine (Steam).—See Generator (Electric).

Fire Apparatus (Chemical Truck).—City of Hickory, N. C., John W. Ballew, City Mgr.—Bids until July 30 on motor-driven chemical truck, 120 gals. capacity.

Flanges and Shaft (Water-wheel).—E. E. Milam, R. No. 4, Ashland, Ala.—Correspondence with manufacturers of iron shaft and flanges for overshot water-wheels and segment.

Flusher and Sprinkler.—D. M. Abernethy, City Purchasing Agent, Charlotte, N. C.—Bids until July 25 for combination flusher and sprinkler, capacity 1200 to 1500 gals.; submit specifications, photographs, price and earliest delivery.

Furnaces (Electric).—Columbite Reduction Co., Charlotte, N. C.—Prices on 2 resistance-type electric furnaces capable of attaining 2000° C. and 3000° C., respectively. (See Laboratory Equipment.)

Generator (Electric).—Boston-Arkansas Mining Co., 308 Parkinson Bldg., Okmulgee, Okla.—Prices on small 100-light generator with storage battery.

Generator (Electric).—Geo. B. Curd Co., Union Central Bldg., Cincinnati, O.—Prices on 75 K. W. generator, 220-volt, D. C., direct connected to steam engine; delivery Cincinnati.

Generating Set (Electrical).—J. W. Kohn, 1918 Seranton Rd., Cleveland, O.—Prices on 20 to 25 K. W., 125-volt, D. C. turbo unit; General Electric, Curtis preferred; first-class condition.

Hammer (Steam).—United States Maritime Corp., Brunswick, Ga.—Prices on steam hammer, about 600 lbs.

Hardware.—See Machinery, etc.

Ice Machinery.—Constructing Quarter-master, Fort Caswell, N. C., wires Manufacturers Record; furnish names and addresses manufacturers of ice machinery.

Ice Machinery.—Keith Lumber Co., Voth, Tex.—Prices on 3 to 6-ton ice machine; state make, condition, how long used and location.

Iron (Black).—United States Maritime Corp., Brunswick, Ga.—Prices, for immediate delivery, on about 2000 ft. 3/4x8 refined black iron.

Kilns.—See Clayworking Machinery.

Laboratory Equipment.—Columbite Reduction Co., Trust Bldg., Charlotte, N. C.—Prices on complete laboratory equipment and pure chemicals; 2 resistance-type electric furnaces, capacity to attain 2000° C. and 3000° C., respectively; also prices on various chemicals; for installation plant of Oliver Quartz Co. (See Chemicals; see Furnaces.)

Lathe.—J. F. Stroud, Cor. Main and E. Pecan Sts., Lockhart, Tex.—Prices on lathe for blacksmith shop and garage.

Laundry Machinery.—J. L. Tibbott, 2110 Washington Ave., Houston, Tex.—Data and prices on laundry machinery for natatorium.

Lifts (Coin).—See Elevators and Lifts.

Locomotives.—See Cars.

Locomotive, etc.—W. J. Frees, 913 Littlefield Bldg., Austin, Tex.—Prices on 2 or more motor engines for 25-mi. mining and ore-hauling railroad; rails; ore cars.

Locomotives.—E. M. Co., Room 602 Drake Bldg., Easton, Pa.—Prices on two 24-gauge locomotives; second-hand; describe.

Machinery, etc.—Eastern Trading Co., 30 Meadows St., Fort, Bombay, India.—To represent manufacturers of machinery; cotton goods; woolen goods; silk goods; hardware; copper; brass; aluminum; electrical machinery and accessories, etc.

Machinery, etc.—A. S. Puccio & Co., 23 Beaver St., New York.—To represent (for trade in Peru) manufacturers of: Machinery; hardware; carpenters' tools; electrical supplies; mowers and reapers; planters and seeders; plows and cultivators; threshers; farming tools; barbed wire and fence material; dress goods; prints; gingham; sheetings; shirtings; notions; printing (newsprint) paper.

Mining Machinery.—See following: Clutch; Pump; Compressor; Generator.

Metals.—See Machinery, etc.

Mixers.—See Sweeping Machinery.

Motors (Electric).—Purchasing Agent, Security Cement & Lime Co., Hagerstown, Md.—Prices on 50 H. P. General Electric motor; 440 volt, 3 phase, 60 cycle, 1800 R. P. M., form "K"; immediate delivery.

Mining and Crushing Machinery (Salt).—Benness Salt Co., Box 536, New Orleans, La.—Prices on crude oil engines, electrical equipment, mining machinery, crushers, mills, screens, etc.; for installation Lafayette, La.

Mining Equipment.—See Locomotive, etc.

Paving.—M. J. McChesney, City Mgr., Charleston, W. Va.—Bids until July 19 to curb and pave portion of Columbia Blvd., Chesapeake Ave., Jackson St., etc.; 3800 ft. curb and gutter; 6300 sq. yds. paving; consider all well-known classes of paving; further information from H. R. Wiley, City Engr.

Paving.—Baltimore (Md.) Board of Awards, City Hall.—Bids until July 24 to grade and pave with cement concrete alleys as listed in Private Alley Contracts Nos. 40, 41 and 53; specifications and proposal sheets from R. M. Cooksey, Highways Engr.

Pipe.—E. M. Co., Room 602, Drake Bldg., Easton, Pa.—Prices on 1500 ft. 6-in. wrought pipe; second-hand; describe.

Pipe (Soil).—Carter Corp., Crozet, Va.—Prices on cast-iron soil pipe, 2 and 4-in., and fittings, for drainage system. (Erecting cold-storage warehouse.)

Pulverizer and Blower (Coal).—Trulock Ice Co., El Reno, Okla.—Data and prices on machinery for pulverizing coal into powder and forcing under boiler by air pressure.

Pump.—See Well-drilling Machinery.

Pump (Boiler Feed).—Chas. T. Lehman, 1921 Powell Ave., Birmingham, Ala.—Prices on boiler feed pump, outside end or center packed; 7 1/2x4x10 in. to 10x6x10 in.

Pump (Mine).—Boston-Arkansas Mining Co., 308 Parkinson Bldg., Okmulgee, Okla.—Prices on pumping unit, to place underground, capacity 100 gals. water per min. on lift of 200 ft., and fitted for 300 ft. when necessary.

Rails.—W. J. Frees, 913 Littlefield Bldg., Austin, Tex.—Prices on rails. (See Locomotive.)

Road Construction.—Marshall County Court, S. Howe Bonar, Engr., Moundsville, W. Va.—Open bids August 7 to construct 1 1/2 mi. brick and concrete road; \$50,000 available.

Road Construction.—Comms. (R. L. Westbrook, W. R. Cross and J. C. Miller), Magnolia-McNeil Road Improvement Dist. No. 1, Columbia County, Magnolia, Ark.—Bids until July 31 to construct 13 1/2 mi. gravel road; 60,000 cu. yds. grading; 28,500 cu. yds. gravel; 150 cu. yds. plain and 350 cu. yds. reinforced concrete; 1000 lin. ft. pipe culvert; plans and specifications on file with County Clerk, Magnolia, State Highway Com'n., Little Rock, and Parkes Engineering Co., Dist. Engr., Citizens' Bank Bldg., Pine Bluff, Ark.; copies obtainable from engineers.

Road Construction.—Campbell County Highway Comms., Jacksboro, Tenn.—Bids until August 6 to construct 15 mi. of road between Jellico and La Follette; portion of Dixie Highway; plans and specifications on file with Clerk of County Court, Jacksboro; information from J. N. Miller, Supt.

Roofing.—Carter Corp., Crozet, Va.—Prices on built-up roofing to lay on concrete slab.

Safe.—See Bank Fixtures.—George Hughes.

Separator (Cream).—John W. Wilson, Middletown, Md.—Prices on cream separator.

Sewer Construction.—City of Miami, Fla., W. B. Moore, City Clerk.—Bids until Aug. 1 to construct 13,000 lin. ft. 8 to 18-in. vitrified clay pipe sewers and appurtenances; plans and specifications obtainable from Chas. W. Murray, City Engr., 213 Townley Bldg.

Sewage-disposal Plant, etc.—John C. Davis, City Secy., Waco, Tex.—Bids until Aug. 8 to construct sewage-disposal plant, Imhoff sprinkling system, with daily capacity 7,000,000 gals.; also 8 mi. 12, 15 and 18-in. vitrified clay and 2 mi. 42 and 48-in. concrete sanitary sewers; plans and specifications on file with Rollen J. Windrow, City Engr., and P. Trevino, Consult. Engr., City Hall, Waco.

Seating.—W. R. Griffin, P. O. Box 863, Orange, Tex.—Prices on school seats.

Shafts (Iron).—See Flanges and Shaft.

Shovel (Traction).—E. M. Co., Room 602, Drake Bldg., Easton, Pa.—Prices on 3/4 or

3/4-yd. traction shovel; second-hand; describe.

Signs (Electric).—Carter Corp., Crozet, Va.—Prices on electric sign for front of building.

Staves (Oak).—Barrel and Cooperage Sales Exchange, 60 Eighteenth St., Pittsburgh, Pa.—Prices on number of carloads 40 and 42-in. oak staves for manufacture of slack casks for packing.

Standpipe.—Rocky Mount Mills, Rocky Mount, N. C.—Prices on new or second-hand standpipe 90 ft. high, 20-ft. diam. (See Tank and Tower.)

Sweeping Compound Machinery.—H. C. Bragaw, Washington, N. C.—Addresses of manufacturers of machinery for making sweeping compound of sawdust and oil.

Tank and Tower.—Rocky Mount Mills, Rocky Mount, N. C.—Prices on standpipe 90 ft. high, 20-ft. diam., or 75,000-gal. tank on 75-ft. trestle; second-hand preferred.

Tanks (Water).—Tahoka Oil & Gas Co., Tahoka, Tex.—Prices on water tanks. (See Well-drilling Equipment.)

Unloader.—E. M. Co., Room 602, Drake

Bldg., Easton, Pa.—Prices on unloader with gasoline engine; second-hand; describe.

Well-drilling Equipment, etc.—Tahoka Oil & Gas Co., Tahoka, Tex.—Prices on machinery to drill 4000 ft.; also casing, water tanks, etc.

Vault.—See Bank Fixtures.—George Hughes.

Vault Lining, Entrances, etc.—Treasury Dept., Supervising Architect's Office, Washington, D. C.—Open bids July 31 for construction entrances for 3 safety vaults and furnishing certain vault lining and infusible metal alloy shapes for United States Assay Office, New York; drawings and specifications from Supervising Chief Engr., Room 731, United States custom-house, New York, or at office of architect.

Ventilating System.—Carter Corp., Crozet, Va.—Prices on exhaust ventilating system, with exhaust fans, spiral riveted pipe, etc.

Well-drilling Machinery.—R. R. Rouse, Water and Light Commr., Kinston, N. C.—Bids until July 20 for deep well-drilling machine, 450 to 500 ft. complete, with jetting tools and pump.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Huntsville.—Preliminary survey will be made immediately, it is reported, by J. M. Phillips for the proposed interurban railway from Huntsville to Florence, Ala., 65 mi.

Ky., Frankfort.—Lenox Railroad Co. of Frankfort, capital \$300,000, is chartered. Incorporators: H. M. Collins, G. M. Gayle, Ben Keenon, W. E. Dawson, G. W. Coleman, A. W. Overton and A. A. Oppelt. A report says that the line will be 15 mi. long from a connection with the Louisville & Nashville Railroad, and will traverse coal and timber land in Morgan and Owsley counties, connecting also with the Ohio & Kentucky Railroad near Cannel City, Ky. Surveys are completed and contracts pending.

Ky., Hazard.—Louisville & Nashville Railroad is reported contemplating construction of second track on the Eastern Kentucky division. H. C. Williams, Louisville, Ky., is Chief Engr. of Constr.

Md., Baltimore.—Contracts have been let by Baltimore & Ohio R. R. to Empire Engineering Co. of Baltimore for extension of yards at Bayview, Baltimore; for passing sidings at Tuscarora, Germantown and Metro, South

Junction, Md., to W. J. Torrington, Philadelphia; for additional yard tracks at Keyser, W. Va., to the James F. McCabe Co., Baltimore; and for storage tracks at Flemington, W. Va., to the Empire Engineering Co.

Md., Hagerstown.—Western Maryland and Cumberland Valley railroads have begun construction of second track at and near Hagerstown to facilitate train movements. On latter, second track may be built to Chambersburg, Pa., 21 mi. T. B. Kennedy, Chambersburg, is Chief Engr.

Va., Alexandria.—Construction is proceeding rapidly on the Mount Vernon & Camp Humphries Railway, and it is expected that the track will be completed by September, as laying rails is to begin in about a month. James R. Caton is Pres., and John G. Graham, Secy. and Treas.; both of Alexandria.

STREET RAILWAYS

N. C., Wilmington.—Financing has been arranged, it is announced, for the proposed street-railway extension to the new ship-building plant. Hugh McTae is Pres. Tide-water Power Co.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Change of Office.

The Clinchfield Portland Cement Corporation of Kingsport, Tenn., announces that it will discontinue its branch office at Charlotte, N. C., on August 1, and that the business formerly handled through it will be taken over by the Savannah office, which is under the charge of C. F. Pritchard.

New Orleans Office Changed.

The New Orleans office of the Edison Storage Battery Supply Co. has been moved from 201 Baronne St. to larger and more commodious quarters in the Maison Blanche Bldg., Room 911, this change being made necessary by the increasing demand for Edison storage batteries in the South, where the merits of the various vehicles, trucks and tractors, as well as storage-battery locomotives, propelled by these batteries, are being more and more appreciated in widely differing lines of business. D. B. Mugan is the district sales manager.

National Sulphur Blue L.

This is the latest addition to the series of sulphur blue now being manufactured by the National Aniline & Chemical Co., Inc.,

21 Burling Slip, New York, and in announcing it the company says that it places in the hands of dyers a product possessing considerable brilliancy. It is applied to cotton in the usual manner, and is said to be on the whole a most satisfactory dyestuff, meeting the requirements of cotton dyers who have been in need of a fast, bright blue of this type. Dyers interested will, upon request, be supplied with full working details, with product sample, and dyeings from any of the company's branches.

Interesting to Exporters.

The Ver. Bureau Voor Handelsinlichtingen (Commercial Intelligence Bureau) of Amsterdam, Holland, has issued two useful reports, one for 1915 and the other for 1916. This is an association of manufacturers and merchants there for the purpose of fostering trade with foreign countries. It is subsidized by the Government of Holland, and its object is to collect information from all parts of the world regarding industries and commercial affairs; to furnish information gratis to anybody desiring it; to collect samples and exhibit them in its building.

(Continued on page 84.)

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Capital and Surplus
\$4,000,000



Total Resources
\$38,000,000

The Largest National Bank in the South

Liberal Accommodations to Manufacturing Corporations

**MERCHANTS-MECHANICS
FIRST NATIONAL BANK
OF BALTIMORE**

**The National Exchange Bank
OF BALTIMORE, MD.**
Hopkins Place, German and Liberty Sts.
Capital \$1,500,000.
March 30, 1915, Surplus Profits, \$850,000.00
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SUMMERFIELD BALDWIN, Vice-Pres.
CLINTON G. MORGAN, Cashier.
JOSEPH W. LEFFLER, Asst. Cashier.
WILLIAM R. WEBB, Asst. Cashier.
Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

Maryland Trust Company BALTIMORE

Capital \$1,000,000
TRANSACTS A GENERAL TRUST AND
BANKING BUSINESS
Correspondence and interviews
invited.

**The Palmetto National Bank
OF COLUMBIA**
CAPITAL \$500,000.00
Surplus and Undivided Profits \$250,000.00
COLUMBIA, S. C.

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SCHOOL and DISTRICT
Correspondence Invited from Officials and Contractors
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Get our proposition of how we are working
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We purchase SCHOOL, COUNTY and
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FINANCIAL NEWS

The MANUFACTURERS RECORD invites in-
formation about Southern financial matters.
Items of news about new institutions, divi-
dends declared, securities to be issued,
openings for new banks, and general dis-
cussions of financial subjects bearing upon
Southern matters.

FINANCIAL CORPORATIONS

Ala., Monroeville. — Bank of Monroeville
chartered and inceptd. Capital \$25,000. James
K. Keyser, Pres.; A. C. Lee, V.-P. Busi-
ness is to begin August 15.

Ark., Benton.—Farmers & Merchants Na-
tional Bank, chartered; capital \$25,000, sur-
plus \$2500. Inceptd. J. M. Caldwell, F. C.
Bush, J. H. Kelley and others. Officers not
yet selected. Business is expected to begin
not later than September 1.

Ark., Mansfield.—National Bank of Mans-
field, succeeding the Bank of Mansfield, char-
tered; capital \$50,000; surplus \$10,000. W. L.
Seaman, Pres.; J. F. Graves, V.-P.; C. C.
Graves, Cashier; W. L. Yowell, Asst. Cash.
Business began June 21.

Ga., Conyers.—First National Bank applied
for charter; capital \$75,000.

Ga., Rebecca.—People's Bank chartered.
capital \$25,000. Business is to begin about
July 20. Officers not yet elected. Address
L. O. Benton, Monticello, Ga.

Ga., Rhine.—Rhine Banking Co. chartered.
capital \$25,000. Incorporators: W. McRae,
J. H. Roberts, W. P. Cobb and others.

La., Cedar Grove.—A new State bank is
reported being organized by R. G. Brown and
others.

La., New Orleans.—A new bank, which
will probably be named the Latin-American
Bank, is reported being organized with \$5-
000,000 capital. Lieut.-Gov. Fernand Mouton
will, it is stated, be president.

Md., Baltimore.—National Central Bank of
Baltimore chartered; capital \$400,000. Con-

version of the German Bank of Baltimore
City.

N. C., Fayetteville.—A new banking in-
stitution to be headed by Frank H. Woodson,
Pres.; Cumberland Savings & Trust Co.
Fayetteville, it is reported, will be orga-
nized.

N. C., Lowell.—Bank of Lowell, capital
\$50,000, inceptd. by S. M. Robinson, T. P. Ro-
binson and Colt M. Robinson.

N. C., Raleigh.—Elwell Insurance Co. char-
tered; capital \$50,000. Incorporators: E. H.
Elwell, Raleigh, and J. L. Scott and W. E.
Sharpe, Burlington.

N. C., Salisbury.—Brown Insurance & Real
Estate Co. is organized with J. Allen Brown,
Pres.; H. H. Brown, Secy.; T. B. Brown,
V.-P.; Frank R. Brown, Treas.

Tex., Bertram.—Farmers' State Bank, cap-
ital \$25,000, organized with John T. Hutto,
Pres.; Claude McBryde, V.-P.; R. A. Mc-
Cann, Cash.

Tex., Tenaha.—A State bank is reported
organized with M. B. Brown, Cash.

Tex., Waskom.—Guaranty State Bank au-
thorized to begin business; capital \$100,000.
E. S. Frey, Pres., and W. M. Waters, V.-P.

Va., Appomattox.—Farmers' National Bank
chartered; capital \$50,000.

Va., Zuni.—Bank of Zuni, capital \$25,000,
is organized with R. A. Horne, Pres.; G. P.
Johnson, V.-P., and W. E. McClenny, Cash.
Business began June 15.

Va., Birdnest.—Farmers' Bank, capital
\$15,000, is organized with R. Fulton Powell,
Berlin, Md., Pres., and W. R. Asworth,
Birdnest, V.-P.

W. Va., Charleston.—Mutual Savings &
Loan Co., capital \$125,000; inceptd. by T. G.
Nutter, M. Green, H. Spinner and others.

NEW SECURITIES

Ala., Altoona.—(School).—Election re-
ported held to vote on \$75,000 bonds. Address
School Board.

Ala., Florence.—(School, Water).—City
votes July 22 on \$125,000 school and \$25,000
water-works improvement and \$125,000
plant bonds. Address The Mayor.

Ark., Batesville.—(Road).—Batesville-Ma-
moth Spring Improvement Dist. No. 2, de-
pendence County, Comms., E. C. Parson,
Chrmn., have sold at \$103.13 to Theis-Thom-
kamp, Kaufman-Smith-Ewert Investment
Co. and Wm. R. Compton & Co., St. Louis,
\$80,000 of bonds.

Ark., Fort Smith (Paving).—Improvement
Paving Dist., No. 14, has sold at \$100 pre-
mium, cost of bonds, etc., to First National
Bank of Fort Smith \$10,500 of 6 per cent.
bonds, dated April 1, 1918, and maturing an-
nually, beginning April 1, 1919. W. F. Bos-
er is City Clerk.

Ark., Little Rock.—(School).—Gateway
Rural Consolidated School Dist., Pulaski
County, will receive bids until July 30, inclu-
sive, for \$4000 of 6 per cent. 25-year bonds.
Address Mark Valentine, Secy., Rural Route
No. 1, North Little Rock.

Ark., Marvell.—(Water, Sewer).—Town
Water-works Commission and Sewer Com-
mission will receive bids July 25 for \$12,250
of 6 per cent. 15-year bonds. Address R. L.
Cooke, Commr. Further particulars will be
found in the Proposals Department.

Ark., Spadra.—(School).—Spadra School
Dist. Board of Education has decided to
issue \$15,000 of 6 per cent. 20-year bonds.

D. C., Washington.—(Sanitary).—Washing-
ton Suburban Sanitary Commission, 617
St. N. W., Washington, has sold to Robert
Garrett & Sons, and Owen Daly & Co., Bal-
timore, Md., bidding jointly, \$50,000 of 4 per
cent. 30-50-year \$1000 denomination bonds,
dated July 1, 1918.

Fla., Blountstown.—(Road).—Calhoun
County voted June 25 to issue \$70,000 of 4
per cent. 30-year \$500 denomination bonds.
Date for opening bids not decided. Address
Board of Comms. (Lately noted.)

Fla., Lakeland.—(Floating Indebtedness).—
City Board of Public Works, C. M. Clayton,
W. W. Chase, K. T. Haynes, Trustees, will
receive bids on or before Sept. 6 for \$20,000
of 6 per cent. \$500 denomination bonds, dated
July 1, 1918. Further particulars will be
found in the Proposals Department.

Fla., Miami.—(Road, Bridge).—Dade County
has sold to the First National Bank of
Miami \$140,000 of 6 per cent. bonds Special
Road and Bridge Dist. No. 3.

Fla., Miami.—(Sewer, Street, etc.).—City
voted to issue \$65,000 sewer, \$40,000 street,
\$40,000 bridge, \$30,000 terminal improvement



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bonds. The entire issue has been sold to Robinson-Humphrey Co., Atlanta.

Fla., Monticello — (Light, Power). — City votes August 6 on \$17,500 of light and power plant bonds. J. M. Johnson, Mayor; John H. Shuman, City Clerk.

Fla., Pensacola — (Sewer, Water, Paving). — City votes August 16 on sewer, drainage, water and paving bonds. F. D. Sanders, Mayor. (Lately noted.)

Fla., Tavares — (School). — Lake County Board of Public Instruction asks bids until 11 A. M. Aug. 5 for the following 6 per cent. bonds: Groveland Dist. No. 38, \$7000, dated June 1, 1917; Lisbon Dist. No. 8, \$2500, dated July 1, 1915; Astor Park Dist. No. 37, \$2500, dated July 1, 1915; L. M. Johnson, Chrmn.; Wm. T. Kennedy, Supt. and Secy.

Ga., Atlanta (Water, Fire Dept., etc.). — City defeated the election July 10 when vote was taken on issuing the following bonds: Water-works improvement, \$500,000; motorizing fire department, \$125,000; cyclorama building, \$100,000; generating plant at city disposal plant \$75,000. Asa G. Candler, Mayor.

Ga., Hiwassee — (Road). — Towns County votes July 13 on \$30,000 bonds. Address County Commrs.

Ga., North Augusta — (Water-works). — City voted \$50,000 bonds. Address The Mayor.

La., Gueydan — (Water, Light, Ice Factory). — City will receive bids until 4 P. M. August 12 for \$20,000 water-works, \$15,000 electric-light system and \$10,000 ice-factory bonds. M. I. Ramsey, Mayor. Further particulars will be found in the Proposals Department.

La., New Orleans — (Canal). — Port of New Orleans Commrs., W. B. Thompson, Pres., has sold \$6,000,000 of 5 per cent. \$500 and \$1000 denomination bonds as follows: \$4,500,000 at 95 and \$1,500,000 at 97½. This is part of the \$5,000,000 issue authorized for the purpose of building the inner harbor—greater Port of New Orleans.

Md., Easton — (School). — Talbot County Commrs. asks bids until noon July 30 for \$800 of 5 per cent. Tilghman School Building bonds; dated August 1, 1918; maturity one year, beginning August 1, 1921; denomination \$1000. Henry P. Turner, County Treas. Further particulars will be found in the Proposals Department.

Miss., Aberdeen — (Road). — Monroe County, G. G. Ray, Clk. County Supvrs., will receive bids until 2 P. M. Aug. 5 for \$40,000 of not exceeding 6 per cent. 11-25-year \$500 denomination bonds Supvrs. Dist. No. 2; dated May 1, 1917.

Miss., Columbus — (Road). — Lowndes County votes July 30 on \$25,000 Artesia Road Dist. and \$10,000 Zion Road Dist. bonds. Address County Supvrs.

Miss., Lauderdale — (School). — Lauderdale County Supvrs., W. R. Pistole, Clk., will receive bids until 2 P. M. Aug. 6 for \$5500 of 6 per cent. bonds Concord Consolidated School Dist.; denomination \$500; maturity Apr. 1, 1923 to 1923, inclusive.

Miss., Magnolia — (Road). — Third Road District, Pike County, gives notice of intention to issue bonds not exceeding 10 per cent. of the assessed value of taxable property in said district. Jno. W. Gatlin, Prest. County Supvrs.

Miss., Skene — (School). — Town votes July 30 on \$7000 of not exceeding 6 per cent. 20-year bonds Skene Consolidated School Dist., Bolivar County. Address The Mayor.

Miss., Toombs — (School). — Toombs School Dist., Lauderdale County, will soon vote on \$3500 bonds. J. O. Thomas, Trustee, Toombs, Miss. R. 2.

Mo., Fayette — (Road). — Howard County plans to vote on \$700,000 bonds. Address County Commrs.

Mo., Laclede — (Road). — Laclede County votes August 9 on \$450,000 of bonds. Address County Commrs.

N. C., Goldsboro — (Paving, Water, Sewer). — City offers for sale 3 P. M. July 22 following 5½ per cent. bonds: \$40,000 of 1-20-year paving; \$35,000 of 1-35-year water and \$15,000 of 1-30-year sewer. C. M. Grantham, City Clerk.

N. C., Greensboro — (School). — City Board of Education advises that it is probable no election will be held at present. Recently reported that plans were being made to vote on \$400,000 of bonds.

N. C., Mooresville — (Street). — Town Commissioners will receive bids until 8 P. M. July 26 for \$26,844.50 street 6 per cent. bonds, dated July 1, 1918; maturity July 1, 1919, to 1928, inclusive. Denomination \$500 and \$184.45. Further particulars will be found in the Proposals Department.

Okla., Ardmore — (Water, Sewer, Incinerating Plant). — City has voted \$490,000 of 5 per cent. 5-20-year bonds. Address The Mayor.

Okla., Avant — (Water, Sewer). — Town has voted \$30,000 water-works and \$5000 sewer bonds; W. C. Darby, Mayor.

Okla., Bartlesville — (Hospital). — City will sell \$50,000 bonds, it is reported. Address The Mayor.

Okla., Chickasha — (School). — Grady County has sold to R. J. Edwards, Oklahoma City, \$20,000 of bonds Union Graded School Dist. 35.

Okla., Quinton — (Water). — City will sell, as soon as approved by Attorney-General, \$98,000 of 6 per cent. \$1000 denomination bonds, voted May 6. Dated June 1, 1918; maturity 1923 to 1943, inclusive. F. R. Hendrickson, City Clerk. (Lately noted.)

Okla., McAlester — (Water, Sewer). — City will receive bids until 10 A. M. July 29 for \$630,000 water and \$108,900 sewage-disposal 25-year bonds. Sale will be contingent upon election to be held Sept. 17. J. M. Gannaway, City Clerk. Further particulars will be found in the Proposals Department.

Okla., Newkirk — (School). — Newkirk School Dist., Kay County, bonds defeated. Address Board of Education.

S. C., Greenville — (School). — Greenville County will receive bids until noon July 25 for \$4000 of not exceeding 6 per cent. bonds School District West Gantt No. 6-B. J. A. McHugh and H. S. Garrison, Trustees.

S. C., Greenville — (Water). — City voted on July 2 to issue \$1,000,000 of not exceeding 5 per cent. bonds for purchase of water plant and improvement of same. These bonds will be given the Paris Mountain Water Co. in payment of bill for purchase price. H. C. Harvey, Mayor. (Lately noted.)

Tenn., Rogersville — (Road) — Hawkins County, L. E. Shanks, Secy., will receive

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bids until 1 P. M. July 20 for \$100,000 of 5 per cent. bonds.

Tex., Austin—(Sewage).—City asks bids until noon July 17 for \$100,000 of 5 per cent. 1-40-year \$1000 denomination bonds, dated July 1, 1918. A. P. Woodbridge, Mayor.

Tex., Austin—(School, Road, Bridge).—County Dist. road, bridge and school bonds, amounting to \$172,200, have been purchased by the State Board of Education.

Tex., Bay City—(School).—Matagorda County has had approved by the Atty.-Gen. \$3000 of 5 per cent. 10-20-year bonds Common School Dist. 12. Address County Commrs.

Tex., Bonham—(School).—Fannin County, Dist. No. 20, has had approved by Atty.-Gen. \$1300 of 5 per cent. 5-20 year bonds. Address County Commrs.

Tex., Canton—(School).—Van Zandt County has had the following bonds approved by Atty.-Gen.: \$3000 of 5 per cent. 40-year Dist. 14; \$2800 5 per cent. 20-year Dist. 107; \$2600 of 5 per cent. 20-year Dist. 52; \$2400 of 5 per cent. 20-year Dist. No. 105; \$2000 of 5 per cent. Dist. 43; \$3800 of 5 per cent. 40-year Dist. 27.

Tex., Conroe—(Road).—Montgomery County has had approved by Atty.-Gen. \$42,000 of 5½ per cent. bonds Road Dist. No. 5. Address County Commrs.

Tex., Crockett—(School).—Houston County has had approved by Atty.-Gen. following 5 per cent. 10-20-year bonds: \$10,000 District No. 26; \$700 District No. 27. Address County Commrs.

Tex., Eastland—(Road).—Eastland County, Special Road Dist. No. 5, has voted \$50,000 bonds for road from Carbon to Rising Star. Steps are being taken, it is stated, to hold election to vote on bonds for road from Carbon to Long Branch. Cyrus R. Frost is County Judge.

Tex., Groveton—(School).—Trinity County has had approved by Atty.-Gen. \$1000 of 5 per cent. 5-20-year bonds School Dist. No. 27. Address County Commrs.

Tex., Lufkin—(Road).—Angelina County has had approved by Atty.-Gen. \$60,000 of 5 per cent. 10-40-year bonds Road Dist. No. 2. Address County Commrs.

Tex., Marlin—(School).—Fall County has had approved by Atty.-Gen. \$3000 of 5 per cent. 10-20-year bonds Common School Dist. No. 65. Address County Commrs.

Tex., McKinney—(Highway).—Collin County voted \$50,000 Exall highway bonds. Address County Commrs.

Tex., Mineral Wells—(Water-works).—City has sold \$5,000 of 5 per cent. 20-40-year bonds to J. L. Arlitt, Austin, Tex. This is part of a \$69,000 issue, \$34,000 of which was purchased by the city for its sinking fund.

Tex., Montague—(School).—Montague County has had approved by Atty.-Gen. \$1500 of 5 per cent. 20-year bonds Common School Dist. 27. Address County Commrs.

Tex., Montague—(School).—Montague County, Dist. No. 70, has had approved by Atty.-Gen. \$1500 of 5 per cent. 10-20-year bonds. Address County Commrs.

Tex., Seminole—(School).—Gaines County has had approved by Atty.-Gen. \$10,000 of 5 per cent. 10-40-year bonds School Dist. No. 10. Address County Commrs.

Tex., Sherman—(School).—Grayson County has had approved by Atty.-Gen. the following school district bonds: \$3000 of 5 per cent. 5-20-year Dist. 68; \$3000 of 5 per cent. 5-20-year Common School Dist. No. 29; \$2500 of 5 per cent. 5-10-year Common School Dist. 59.

Tex., Stamford—(Water).—City has had approved by Atty.-Gen. \$240,000 of 5 per cent. bonds. R. L. Penick, Mayor.

Tex., Stephenville—(School).—Morgan Mill Independent School Dist., Erath County, has had approved by Atty.-Gen. \$5120 of 5 per cent. 10-40-year bonds. Address School Board.

Tex., Waco—(Sewage, Sewer).—City will vote August 6 on \$350,000 of 5 per cent. 30-year \$1000 denomination bonds, dated July 1, 1918, for construction of sewage-disposal plant and construction and repairs of sanitary sewers. Ed. McCullough is Mayor.

Tex., Whitesboro—(School).—City has had approved by Atty.-Gen. \$30,000 of 5 per cent. 20-40-year bonds. Address School Board.

Va., Lynchburg—(Water).—City has awarded to Baker, Watts & Co., Baltimore, and

Estabrook Co., New York, jointly, \$210,000 of 4½ per cent. bonds.

Va., Roanoke—(Fire Dept.).—City has sold at par to the Sinking Fund Commission \$35,000 of 4½ per cent. 30-year bonds.

W. Va., Clarksburg—(School).—Sardis District, Harrison County, will vote in August on \$80,000 of 5½ per cent. \$1000 denomination bonds, dated July, 1918, and maturing 1938, with privilege of redeeming after July 1, 1928. Address Sardis Dist. Bd. of Education.

FINANCIAL NOTES

El Paso Bank & Trust Co., El Paso, Tex., increased capital from \$150,000 to \$200,000.

First State Bank, Dallas, Tex., increased capital from \$250,000 to \$400,000.

Central State Bank, Dallas, Tex., increased capital from \$200,000 to \$500,000.

First State Bank, Caldwell, Tex., increased capital from \$50,000 to \$100,000.

National Bank of Commerce, Louisville, Ky., increased capital from \$300,000 to \$1,000,000.

Sullivan Bank & Trust Co., Montgomery, Ala., has increased capital from \$100,000 to \$250,000.

The Lockwood National Bank of San Antonio, Tex., has occupied its new building, which was erected by Hoggson Brothers of New York and Atlanta. It is of the Dutch type of architecture.

It is announced that the subscriptions to the third Liberty loan, totaling \$4,176,534,000, were distributed by Federal Reserve Districts as follows: Boston, \$354,537,250; New York, \$1,115,243,650; Philadelphia, \$361,965,500; Cleveland, \$405,051,150; Richmond, \$196,230,450; Atlanta, \$137,649,450; Chicago, \$6,857,630; St. Louis, \$196,835,900; Minneapolis, \$180,802,100; Kansas City, \$204,092,800; Dallas, \$116,220,650; San Francisco, \$287,975,000, and Treasury, \$17,917,750.

INDUSTRIAL NEWS OF INTEREST

(Continued from page 81.)

The reports are very interesting, having lists of all articles salable in Holland as well as lists of goods not manufactured in that country in regard to which information and addresses are requested. There are several fine half-tones of the interior of the home of the association, showing some of the rooms in which samples are exhibited.

Cornell Wood-Board Progress.

An interesting photograph received shows A. W. Duell of the War Savings Committee of Cook county, Ill., in the act of receipting for a large supply of Cornell Wood-Board, donated by C. O. Frisbie, president of the Cornell Wood Products Co., 173-175 W. Jackson Boulevard, Chicago. This large wall-board was used as backing for posters displayed in booths all over that city during the big drive for War Savings Stamps on June 27-28. This new use of this durable and economical material shows that it may be employed for small requirements as well as for the larger Government needs, such as the construction of cantonment buildings and for industrial housing. The company, by the way, recently announced through President Frisbie, at its employees' dinner, a plan of group insurance affecting every one of its employees in both the Chicago office and the mills at Cornell, Wis. The insurance varies from \$500 to \$2500, according to length of service. Its expense will be wholly borne by the company.

Sale of Perkins Machine Tool Plant.

It is announced in another column that the property of the F. S. Perkins Company, manufacturers of machinists' tools, engine lathes, rack cutters, suspension drills, etc., Lowell, Mass., will be sold at auction at 1:30 P. M. Thursday, July 25, on the premises, the sale including the name, the good will, the books, the charter, etc., besides 64 new machine tools, of which 24 are brand new; 55 other modern machine tools in exceptionally fine condition, and also 112 lots of machinery and mechanical equipment of good types, the patterns and the stock in process of manufacture. It is stated that the owners, after 14 months of possession and the complete re-equipping of the plant, the business going in good shape, are compelled by the imperative demands of other important interests to give it up. The sale will be made in lots to suit purchasers. It is further stated that the standard of the Perkins products has been fully maintained and that there is stock in hand to practically complete twenty lathes (less beds), and parts for many more. Lowell is 40 minutes from Boston by express trains. The business was established by F. S. Perkins about 1852, and in 1868 it was moved to its present location. Catalogues have been prepared by the auctioneers, J. E. Conant & Co. of Lowell, who will conduct the sale and from whom copies may be obtained.

TRADE LITERATURE

Steel Products, Wire and Nails.

Under the title "List of Steel and Other Products," the Midvale Steel & Ordnance Co. and the Cambria Steel Co., Widener

Bldg., Philadelphia, have issued a comprehensive booklet covering everything made by them which may be classified under this general head. Their output includes everything from the very finest wire nail weighing only one ten-thousandth of a pound to a huge steel casting weighing 200 tons. This extensive and varied capacity is the result of 75 years of manufacturing experience and the building up of an organization of specialists in steel lines. Further detailed information will be found in the special catalogs issued. Another booklet, which is illustrated, is called "Cambria Wire and Nails." This is in the nature of a price catalog, and it gives full data concerning the wire and nails made at the Johnstown works of the Cambria Steel Co., which have grown to their present magnitude from the little Cambria furnace which began operation in 1842.

Door Hanger Catalogue.

F. E. Myers & Bro., Ashland, O., manufacturers of force and lift pumps, hay tools, farm-operating equipment, etc., have issued a new door hanger catalogue. It includes a complete line of door hangers especially adapted for barns, garages, warehouses and factories. They are of various types, from the plain, flat track, unadjustable hanger to the covered, weatherproof, adjustable hanger, and of such sizes as are required for different weights and types of doors. The book is finely illustrated, and the descriptions of the different hangers are complete. The firm reports that although building is limited at present, the door hanger business has continued good with it, there being a continued demand for hangers, not only for new structures, but for replacements, and especially for buildings which it is desired to surround with every possible safeguard.

Book Reviews.

Poems and Paragraphs. By Robert Elliott Gonzales. Columbia, S. C.: The State Company, 1918.

In this volume are bound the numerous poems written by Mr. Gonzales during the most active period of his life, which was all too brief, for he died at the age of 28 in the service of his country on the Mexican border. They are full of color and brilliance, and many are of unusual merit. Among them are "The Last Feast in Babylon," which portrays thrillingly the final orgy of Belshazzar and its tragic end; "The Dance of the Fairies," a beautiful mystical composition; "The Abbot and Maid Marian," brimming with humor and humanity, besides others of equal worth and all of attractive interest. The paragraphs, which were written during his newspaper career, abound with wit and humor, possessing a lively spice which holds the reader's attention and makes him anticipate more. Mr. Gonzales died of pneumonia in December, 1916, while in the army as a private soldier. He was a volunteer.

THE HAMMOND HOTELS

THE HOTEL ESSEX

BOSTON, MASS.

Opposite South Terminal Station

EUROPEAN PLAN.

RATES MODERATE.

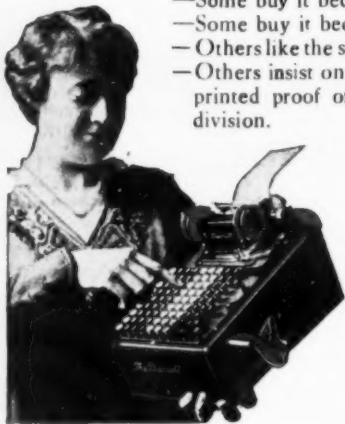
ABSOLUTELY FIREPROOF.

Free Transfer Baggage from and to Station. Terminal of Trains from South and West.

DAVID REED, Manager

Why Are the Largest Corporations Buying the Barrett Adding, Listing and Calculating Machine?

- Some buy it because it has a 12-dial capacity.
- Some buy it because it has right-hand control.
- Some buy it because it is noiseless in operation.
- Others like the standard flexible keyboard of 81 keys.
- Others insist on the Barrett because it furnishes a printed proof of all figures in multiplication and division.



—Many are attracted by the price, but—

Everyone buys it because it is a portable desk machine—simple to operate and can be carried to the work.

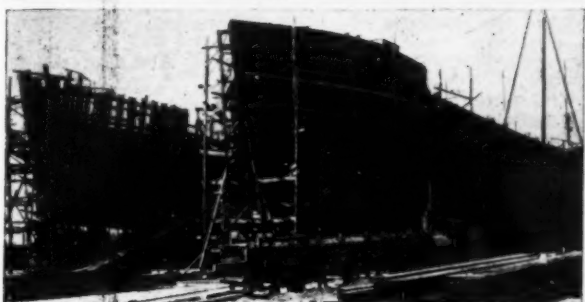
The smallest concerns buy it because they secure an adding and listing machine and an efficient calculating machine for only \$250.00

Send for List of 1,000 Prominent Users.

Barrett Adding Machine Co.

Bulletin Building

Philadelphia, Pa.



Preservative Treatment of Timber is Essential

CONSERVATION of our natural resources is imperative, and to that extent *wood-preservation is a war measure*; it conserves the timber supply by reducing the waste due to decay.

Emergency conditions and the character of war-construction require employment of methods combining availability with speed and efficiency.

Non-pressure methods of creosoting wood (Brush-treatment and the Open-Tank System) are adaptable to practically all conditions, and are efficient where recommended and when applied in accordance with specifications.

The illustrations herewith indicate one phase of creosoting closely related to war-work. It is just as important to

retard or eliminate decay in other types of wooden construction.

Carbosota Creosote Oil is the recognized standard wood-preservative used throughout the United States, Canada, and also abroad, for creosoting of structural wood by non-pressure treatments. It conforms to U. S. Emergency Fleet Corporation Specification No. 128.

Technical assistance, specifications, and any other information regarding the Carbosota treatment may be obtained gratis by addressing nearest office.

Barrett's
Carbosota
Grade-One Liquid
Creosote Oil

The **Barrett** Company

New York Chicago Philadelphia Boston St. Louis Cleveland
Cincinnati Pittsburgh Detroit Birmingham Kansas City Minneapolis
Nashville Salt Lake City Seattle Pro in Atlanta Duluth Milwaukee
Bangor Washington Johnstown Lebanon Youngstown Toledo Columbus
Richmond Latrobe Bethlehem Elizabeth Buffalo Baltimore
THE BARRETT COMPANY, Limited Montreal Toronto
Winnipeg Vancouver St. John, N. B. Halifax, N. S. Sydney, N. S.



Small illustration at right shows man Brush-treating faying surfaces of ship timbers with Carbosota.

MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

Test of Pipe With Heavy Load.

The accompanying illustration shows a test of continuous reinforced concrete pipe made by the Lock Joint Pipe Co., Ampere, N. J., from Clinchfield Portland cement. In a letter the company says: "We had two contracts with the city of Savannah, totaling approximately 43,000 feet of pipe, ranging in size and including 24-inch to 72-inch pipe." Nearly every size was tested, but the picture represents a 60-inch inside diam-



HOW THE TEST WAS APPLIED.

eter pipe. If you will look very carefully at the photograph you will see the end of the 1-inch by 1-inch stick under the piece of 2 by 6-inch wood. This is a remarkable test with a knife-edge load of this kind."

It is further stated that the total load employed in the test was 21,000 pounds on a 1-inch edge 3 feet 6 inches long. Support, arc of only 15 degrees. Deflection, 1/16 inch. Hair cracks only, top, bottom and at spring line. Pipe only two weeks old.

The cement used was manufactured by the Clinchfield Portland Cement Corporation of Kingston, Tenn., none other being employed on these contracts. It was furnished through the Chapman-Clark Co., Savannah, Ga.

Demountable Bodies for Trucks.

Demountable truck bodies to facilitate the transportation and delivery of both heavy and light materials are to be manufactured on a large scale by a corporation now being organized at Martinsville, Va., and the accompanying illustration shows their ability to deliver bricks, for instance, without scattering them over the ground. Greer & Fontaine of Roanoke, Va., who have hitherto manufactured these trucks and who have just disposed of their patents to the American Truck Body Co., which is the new corporation, says that these bodies, loaded, may be handled from ships or cars with derricks to trucks and that the trucks will deposit where desired either the loaded bodies or their contents alone, and, since they are detachable, an empty body may be filled while the truck is hauling another. A brick body can be unloaded in less than a minute, it is stated, leaving the brick in a nice neat "hack." They also say that they have demonstrated their ability to haul both bricks and eggs in one and the same load, loading, hauling and dumping bricks and eggs together and not breaking either. Other heavy and fragile materials may similarly be hauled together and delivered without damage. It is intended to bring these truck bodies to the attention of the United States Government, as it is believed they will be of particular value for the handling of high explosives carefully and quickly, as well as for handling a variety of heavy materials.

Commendations, Kicks, Comments

Our Task to Kill the Hun.

G. T. BRAZELTON, Cincinnati, O.—It is my patriotic duty to commend your aggressiveness against the Hun.

The responsibility for the outcome of this war rests upon the people at home as much as on the soldiers at the front. I mean the mental attitude of the people at home as well as their work in the shops and fields.

The soldiers are drilled and drilled to go into battle, hating the Hun and to Kill! Kill! Kill!!!

We at home must feel the same way. We, as well as our soldiers, are in this war. We can't load rifles with one hand and write excuses with the other for the "poor misguided German people." We either load rifles with both hands or be pro-German.

Your MANUFACTURERS RECORD is doing more than any ten papers or periodicals, I believe, to give the American people the proper attitude towards this war and the Huns.

Its vigorous patriotism is ably supplemented by columns of newsy information about the atrocious methods of the Huns, the like of which we seldom see in other papers, and I note with pleasure the promptness and firmness with which you place your heel on the misdirected sympathies for the "poor German people."

I can't understand why a greater number of these self-acclaimed guardians of our liberties, the daily papers, and leading weeklies do not go after the Hun with hammer and tongs. They can softly lay aside their high and mighty dignity. Now is the time for shirt-sleeve fighters.

You are the only one hitting the Hun regularly, continuously and vigorously enough to suit me. And may the power of your strokes increase!

Must Be Saturated With Justness of Our Cause.

PAUL V. MOORE, Manager Spartanburg Chamber of Commerce, Spartanburg, S. C.—Please find enclosed check for renewal of subscription of the MANUFACTURERS RECORD for one year. Would that we could express in adequate terms our endorsement and appreciation of the great service you are rendering this nation in arousing it to a full realization of the serious results that would follow German domination!

No man can read your strong and forceful portrayal of indisputable facts without conviction that our very national life is now being weighed in the balance. To fight abroad, to give, to save, to work at home most effectively, we must be saturated with the justness of our cause, as well as with the heinousness of German methods.

Our copy of the MANUFACTURERS RECORD is being passed on where we think it will do most good. Go on with the good work. "The truth shall make you free."

The Only Peace Terms.

A. L. MULIN, Buckeye Iron & Brass Works, Dayton, O.—I am a stenographer in the office of the Buckeye Iron & Brass Works. I have been reading your series of truly brilliant articles on the war situation, and I could wish that your Mr. Edmonds could have a place at the peace table when our soldiers over there have rounded up the Potsdam gang. I certainly subscribe, heart and soul, to the article "The Only Peace Terms We Can Consider," which

appeared in your issue of June 20, and your issue of July 4 contains the most powerful and masterly arraignment of the Germans it seems possible to pen. Of course, we all feel that there are really no words to do the subject actual justice, but I do congratulate you, and encourage you with all might in the great work you are doing as "An Exponent of Americanism," and letting the American public know just what they have to deal with.

I certainly watch for the weekly issue as it comes to my office. Keep up the good work.

Makes One Proud to Be Called an American.

M. E. MILLER, Highland Citrus Sub-Exchange of the Florida Citrus Exchange, Tavares, Fla.—I have had the pleasure of reading several copies of the MANUFACTURERS RECORD recently, and am thoroughly convinced that it is all it claims to be, "An Exponent of Americanism," and deserves to be read by all who wish to be fed on the kind of diet that puts red blood in the veins and makes one proud to be called an American. Long may you live to defend the right, as you are so patriotically doing through your columns! Enclosed check for \$6 is for one year's subscription to the MANUFACTURERS RECORD and 25 copies of the August Thyssen pamphlet revealing the crimes of Germany against humanity.

If you can do so, please begin my subscription with the July 4 copy.

Ahead of the Times.

FRED MANLEY, Manley & Young, Inc., Architects Engineers, Knoxville, Tenn.—Enclosed find subscription price for the MANUFACTURERS RECORD for another year.

Your publication seems to keep one ahead of the times from one to three years. You were ahead in advocating war with the Huns about two and a half years, and your policy of trying to get the industrial plants of the country scattered throughout the South instead of along the Great Lakes and the East has been a policy that the country is going to realize the importance of next winter, when the railroads cannot move the coal to keep them going.

A Well-Placed Gift.

J. G. ANDERSON, JR., Secretary-Treasurer Tampa Cigar Co., Tampa, Fla.—I know of no bill that I take greater pleasure in paying than your bill enclosed for subscription to the MANUFACTURERS RECORD from July, 1918, to July, 1919. No periodical reaches my desk that I take more interest in, or no editorials receive a more thorough and hearty approval from me than those published in the MANUFACTURERS RECORD.

Please note that I am enclosing check for \$10, and ask that you send the MANUFACTURERS RECORD to Rev. John G. Anderson, D.D., Gainesville, Fla., as well as renew our subscription.

Americanism Heartily Approved.

CHATTANOOGA SEWER PIPE WORKS, Chattanooga, Tenn.—We take pleasure in enclosing our check for \$5 to renew our subscription. You may be sure that we heartily approve of the doctrine of Americanism you are earnestly urging in each issue of the MANUFACTURERS RECORD, and we wish all editors would go after the Huns like Mr. Edmonds does.



HOW THE DEMOUNTABLE TRUCK BODY STACKS BRICKS.

KOEHRING

The Big Value Light Mixer Koehring Dandie

10 cu. ft. capacity gasoline.
20 cu. ft. capacity steam or gasoline.

May be equipped with pivoted loading, low charging platform, batch hopper, light-duty hoist and automatic water-measuring tank.

The Koehring Dandie is a light mixer with many heavy-duty features of construction—a light, easily portable mixer from which you may expect—and get—reliable lasting service.

It is a big value—because volume production and the standardization of every part keep down the price and better the value.



For the big contractor, who needs a light mixer for general help-out work, or the smaller contractor who requires a mixer that is easily portable and reliable for a great variety of jobs, this Koehring Dandie is a mixer of a new standard of reliability, and, while not the cheapest mixer, it sells at a price well within the range of most mixers. Write for catalog U-5.

Koehring Heavy Duty Mixer

KOEHRING SIZES IN CUBIC FEET CAPACITIES

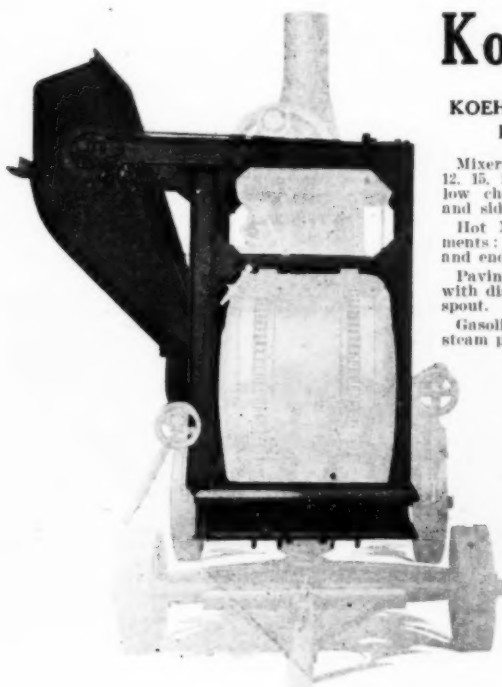
Mixers for construction work: 10, 12, 15, 20, 24, 30, 44. Equipped with low charging hopper, batch hopper and side loader.

Hot Mixers for Bituminous Pavements: 12, 20, 22. Side discharge type and end discharge type.

Paving Mixers: 6, 11, 16, 22. Equipped with distributing boom and bucket or spout.

Gasoline power, electric power or steam power.

Extra liberal in drum dimensions, clean and fast charging and fast in discharge. Koehring heavy-duty mixers are extra yardage machines. Look, for example, at the high angle of the charging skip as illustrated at the left—only possible because of the exclusive Koehring construction, which permits the charging skip to pass between the cable sheaves. It means clean charging. No pounding of the skip. And look at the frame—able to endure high speed operation without chance of throwing moving units out of alignment. Koehring heavy-duty construction means the minimum of delays—the utmost of service. Write for catalog U-4.



Koehring Machine Co. MILWAUKEE, WISCONSIN

Lewter F. Hobbs,
Seaboard National Bank Bldg.,
Norfolk, Virginia.

L. Smith,
520 East 8th Street,
Jacksonville, Florida.

Wilson, Ingram & Company,
312 Church Street,
Nashville, Tennessee.

Edgar Alexander,
906 Fourth National Bank Bldg.,
Atlanta, Georgia.

W. R. Fuller,
406 Zack Street,
Tampa, Florida.

Classified Opportunities

MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

NATURAL GAS.

We are in position to contract for the delivery of unlimited quantities of natural gas for manufacturing carbon black and gasoline or for fuel for manufacturing plants. Monroe field.

Correspondence solicited.
MILLSAITS, OLIVER & MONTGOMERY,
Lawyers, Monroe, La.

FOR GOOD VALUES in Virginia blue grass or general purpose farms, coal and timber lands, and Roanoke City and suburban property, factory sites particularly, address Ellis L. Wright, 313 South Jefferson Street, Roanoke, Va.

MINERAL LAND WANTED

WANTED—To hear from parties owning any kind of mineral property.
UNITED MINERALS CO.,
ROANOKE, VA.

WATER-POWER

A WATER POWER, fully surveyed, of between 8000 and 10,000 H. P., on a river with ores and minerals convenient, which are adapted for products in munitions manufacture, near a city in a Southern State, is for sale. It can be bought at a reasonable price for cash immediate. Address No. 5136, care Manufacturers Record, Baltimore, Md.

MICA MINE

CAPITALISTS, ATTENTION.—Mica mine in mica belt of North Carolina. Mine if developed will show good profits. Mica prices high. Proofs to show what this mine has paid, and yet undeveloped. Write for information. No. 5140, care Manufacturers Record, Balto., Md.

FIRE-CLAY LAND

FOR SALE.—Large tract of fire-clay land in Southern Pennsylvania. Well-known vein, hard and soft clay; best in State. Good railroad facilities. Address P. O. Box 584, Philadelphia, Pa.

PHOSPHATE ROCK

FOR SALE.—Two million tons of blue rock phosphate in the ground near Mt. Pleasant, Tenn., running from 58 to 72 per cent. bone phosphate of lime; spur of the L. & N. R. R. runs through it; locating the Government nitrate plant at Muscle Shoals, Ala., makes the property more valuable; Muscle Shoals is only 60 miles from Mt. Pleasant. Major W. N. Hughes, U. S. A., 523 1/2 Broadway, Nashville, Tenn.

IRON ORE LANDS

FOR SALE.—500 acres iron ore, above three million tons, carrying 55 per cent. metallic iron, as shown by analysis of blast furnaces using the ore. The property is offered for sale at a very low price on a royalty basis, a small sum per ton for ore removed being required to pay for the property. A comparatively small part of the tonnage the property contains at the low royalty will pay the purchase price. Only \$25,000 capital needed to properly equip the mine for getting out a large tonnage of ore, for which there is a great demand. The ore can be sold at a price to insure more than 100 per cent. per annum net on the investment, after deducting the royalty to pay for the property. Would sell to a corporation having necessary capital to equip the mine, giving long time, easy payments. This property is owned by a bank, and must be sold. Address No. 421, James Bldg., Chattanooga, Tenn.

FOR SALE.—16,000 acres valuable iron-ore property, undeveloped, carrying the Oriskany and Clinton seams, varying from 4 to 10 feet thick. Iron runs from 51 to 60 per cent. Norfolk & Western Railway runs through property. For particulars address George H. Williamson, Citizens' National Bank Bldg., Charleston, W. Va.

MANGANESE ORE LANDS WANTED

IF YOU have high-grade manganese ore in the Southern Appalachian section, and are willing to let the operator make part of the money, write full particulars to No. 5074, care Manufacturers Record, Balto., Md.

MANGANESE ORE LANDS

760 ACRES MANGANESE ORE LANDS for sale; engineer's estimate, 800,000 tons; railroad one mile; now mining with pick and shovel; analysis and records available. Address Doak Adelott, Tullahoma, Tenn.

COAL LANDS AND MINES KENTUCKY GAS & BY-PRODUCT COAL.

Operating mines, Harlan & Hazard. Fields, sold to consumers of Central West. Low sulphur and ash, especially suited for malleable-iron producers. Consumers can assure themselves of uniform quality and desired quantity. Agent also for virgin coal lands. Reference—any Louisville bank. Upon request will be pleased to refer to large consumers whom I have located in this territory.

J. STODDARD JOHNSTON

PAUL JONES BUILDING,

LOUISVILLE, KY.

RATES AND CONDITIONS

Rate 25 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, postoffice or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, whiskey or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 23c. per line; 300 lines, 21c. per line; 500 lines or more, 20c. per line.

COAL LANDS AND MINES

FOR SALE.—2020 acres of coal lands in Webster county, West Virginia, 1500 acres of which are in fee, residue coal, with mining rights, one mile from R. & O. R. R.; full rights of way and 4 acres on the railroad for siding, etc. There are four workable seams above water-level on the property, three of which seams are each over 4 ft., and one seam over 7 ft. For description, price and terms write to E. B. Dyer, Morrison Bldg., Charleston, W. Va.

FOR SALE OR LEASE.—3500 acres undeveloped coal lands. Carries all of the Kanawha measures. Ideal for both river and rail shipments. Address George H. Williamson, Citizens' National Bank, Charleston, Kanawha County, West Virginia.

COAL AND TIMBER LAND

FOR SALE.—Bargain: 90,000 acres Tennessee coal and timber land in parcels of 5000 to 10,000 acres, or together, \$3.00 to \$10.00 per acre; part on railroad, part fine virgin timber; good titles; exposures of highest grade coking coal. Owned by estates. E. H. Benedict, 1921 Boatmen's Bank, St. Louis, Mo.

50,000 ACRES Tennessee coal and timber lands, located in Lincoln, Franklin and Coffee counties; must sell to settle partnership. Price \$2.50 per acre; \$15,000 cash, balance on ten equal annual payments. Would accept exchange property to the amount of one-half. T. N. Figuers, Jr., Columbia, Tenn.

LOANS ON TIMBER LANDS

SALES NEGOTIATED. Check Estimates for Loans on Timber Lands. Consulting Forester and Timber Land Factor. 25 Years' Experience All Parts of Country. F. R. MEIER, 165 Broadway, New York, N. Y.

TIMBER OPERATION

ABOUT one hundred million feet standing timber, short-leaf pine, in North Carolina; well located. Can also furnish equipment, including rail, locomotives, skidders, team, sawmill, planing mill and drykiln equipment, in splendid condition. William P. Redd, 30 North Ninth St., Richmond, Va.

TIMBER LAND

60,000-ACRE TIMBER TRACT. The best one left; will cut 250,000,000 feet V. L. L. yellow pine lumber. At \$2.50 stumpage, the timber will pay for land, timber and all, and it is worth twice this price. All fine, rich land, in good, general farming section, trucking and stock raising also, and would make the best sugar plantation in all this United States. Buy this and make your millions. Price \$10 per acre. W. J. Norris, 513 Empire Bldg., Atlanta, Ga.

5500 ACRES Smoky Mountain timber. Southern Railway and Little Tennessee River through middle of the property. Creeks, ravines, general store, postoffice and houses make operation easy. 34,000,000 feet estimated. Best cash offer takes it. Southern Slate Co., Columbus, Ohio.

TIMBER

FOR SALE.—Fifty million feet of fine South Carolina timber, consisting of thirty-nine million feet red gum, five million oak, three million cypress, three million short-leaf pine. This timber is very large and of fine quality; easily logged at any time of the year. Price reasonable. Accessible to railroads. Will bear closest investigation. Address No. 5033, care Manufacturers Record.

EIGHT TO TEN MILLION FEET 10-inch and over heart slash, cypress and gum; 30 miles to port and between two railroads. Two dollars stumpage, and no estimate or charge stuff smaller than 10 inches. Leases run four to ten years. Additional stumpage adjacent. Just put on market. W. R. Morrison, 9 Whitaker St., Savannah, Ga.

APPROXIMATELY 30,000,000 FEET LONG-LEAF, SHORT-LEAF AND ROSEMARY PINE TIMBER, with scattering hardwoods and cypress, in Berkeley County, S. C. Will deal only with prospective purchaser direct. Terms to responsible parties. Address Owner, Box 14, Eutawville, South Carolina.

FOR SALE.—1216 acres good cross-tie timber, 4 to 6 miles from R. R. \$5 per acre; land and timber, \$10 per acre. D. C. Coleman, 902 First Nat. Bank, Birmingham, Ala.

2,000,000 FEET TIMBER, 1/4 mixed oak, balance pine; five miles from R. R. Price, \$11,000. 5,000,000 feet; 1,000,000 original yellow pine, 1,000,000 mixed oak, 3,000,000 second-growth pine; 250,000 feet poplar, 15 miles R. R. Price, \$20,000. J. C. Clay, Gladys, Va.

FARM AND TIMBER LANDS

WE OWN LARGE TRACTS OF TIMBER LANDS, cut-over lands and colonizing lands. If interested, address H. H. Wefel, Jr., & Co., Mobile, Alabama.

FRUIT, FARM AND TRUCK LANDS

THESE COLUMNS ARE CLOSELY READ BY PEOPLE for information of all kinds about Southern properties of every description. If you have a property of any kind that you want to dispose of, try an advertisement in these columns. Others have to their advantage. For rates see head of department.

ALABAMA

TEN MILES from Montgomery, Ala., on gravel road, we have a beautiful farm, consisting of 974 acres. Part of this is black prairie land, suitable for alfalfa and grain, and other land suited for cotton and other crops. Nice dwelling and tenant-houses. Price only \$40 per acre. Duskin & Stewart Realty Co., Montgomery, Ala.

FLORIDA

A BEAUTIFUL WINTER HOME, a profitable orange and grapefruit grove, a general farm, cattle, hog or poultry ranch in the famous Indian River section, Vero, Florida. The wonderful climate permits not only agricultural operations all the year, but all enjoyable, life-prolonging outdoor sports. Investigate now this wonderfully charming section. Indian River Farms Company, First National Bank Building, Vero, Florida.

CATTLE LANDS.

200,000 acres of land along the Miami Canal in that vast, rich empire, The Everglades of Florida, on which the State is now spending millions, deepening and widening the Miami Canal to 90 feet wide and 35 feet deep, thereby furnishing drainage and irrigation; also inland water transportation connecting with deep water at Miami. No clearing to be done. Free from cattle tick. Acre for acre, the Everglades will produce more cattle and hog feed than elsewhere in America. Our largest sales have been to actual developers. This is the cream of the 'Glades. Buy from owners. Tatum Land Company, Miami, Fla.

WANTED.—A buyer for half interest in 80 acres within the city limits of Miami, Fla. (the Magic City of the South). I will spend dollar for dollar on improvements with the purchaser. I prefer an active partner during the winter at least. Address J. H. Meyer, Owner, Miami, Fla.

EVERGLADE LANDS.—Canal drained, ready for plow. 10 foot muck. Section lots \$20 up. Palm Beach or Lee County. Cattle lands, \$5. Sadler, Fort Myers, Fla.

OKLAHOMA

263-ACRE FARM FOR SALE.—One-half mile city limit, Sulphur, Okla. 165 acres improved. Good house, barn, corn crib, hog pen, meadow, pasture, alfalfa. From revenue worth \$100 per acre. Priced right; bear closest inspection. Address Box 682, Sulphur, Oklahoma.

TENNESSEE

600 ACRES FINE BOTTOM LAND, canal-drained; 75 acres in cultivation, balance cut-over; two deep wells; three houses and barn, touching Southern Ry. two miles east of Middleton, Tenn., and 20 miles west of Corinth, Miss., on Memphis-to-Corinth Highway. \$30 an acre; terms. T. H. Wilson, Forest, Miss.

I OFFER 5200 ACRES of splendid land, in Southern part of Middle Tennessee. Well located. No one could ask for a better or surer investment. J. W. McClung, Charlotte, N. C.

TEXAS

2600 ACRES FINE FARM LAND on auto road, three miles from main line of Santa Fe. Very fine improvements. Big lake reservoir equipped with machinery to irrigate 600 acres. Finest duck lake in the South. Price, \$50 per acre. Will accept part trade. G. W. Cook, 291 Carter Bldg., Houston, Texas.

FOR SALE.—4000 acres level bottom land. Highly improved. Station on land. Profit over \$100,000 1917. Priced right. Write for particulars. Reason for selling. Box 448, Nacogdoches, Tex.

VIRGINIA

FOR SALE.—Bearing orchard, about 200 trees, 20 years old, principally Winesap, 6 acres; concrete dwelling, one-half mile from city, two trunk-line railways. E. C. Vance, Staunton, Va.

FOR SALE.—100 acres fine orchard land with 700 bearing trees.
LIBERTY REALTY CO.,
ROANOKE, VA.

BUSINESS OPPORTUNITIES

FARMING OPPORTUNITIES AND INDUSTRIAL SITES along the Winston-Salem Southbound Rwy. Co. Here climate, transportation, good roads, fine schools, and excellent markets contribute to the success of farming, and the large and prosperous industrial centers along our lines offer splendid locations for industries of various kinds. Address S. P. Collier, Jr., Winston-Salem, N. C.

CHEMICAL LABORATORY. We are offering for sale the chemical laboratory of the late Frank P. Drane of the city of Charlotte, North Carolina. This laboratory is well equipped for assaying and for testing of cements and asphalt, as well as for general chemical research. A complete list of the inventory will be mailed to interested parties.

AMERICAN TRUST COMPANY. Administrator of Frank P. Drane, deceased, Charlotte, N. C.

WE offer for sale our complete property, including asbestos mine, machinery for grinding, etc.; a bargain to anyone who understands manufacturing pipe covering and packing of paints. Will sell all or a part of it on reasonable terms. Asbestos Mining & Mfg. Co., Stony Point, N. C.

WANTED.—Responsible party to log and saw million feet of lumber; will pay a good price. Liberty Lumber Yard, Roanoke, Va.

WE CAN SELL YOUR BUSINESS for cash, no matter where located; no publicity. Describe fully in first letter. All correspondence confidential. Herbert, Webster Bldg., Chicago.

I OFFER one-half interest in a retail lumber yard, located in one of the most progressive cities in the South, where there is a large number of the biggest Government operations in the country. Full particulars on application. Address No. 6001, care Manufacturers Record, Baltimore, Md.

INVESTOR WANTED.—By owner of 25-acre farm, suitable for residential subdivision, near Mobile, the city with the opportunities in the United States. Situated 35 feet above, and overlooking the city, highest point on Atlantic coast, 2 1/2 miles from car line, public school, boys' and girls' club, and stores; joins 37th St. Country Club; has excellent water supply, free mail delivery; electric-light and telephone within 300 feet, now available. By automobile, three minutes to car line, and ten minutes to city. This land is extensive of main residential street. Would sell to reliable party and let him handle sub-division, or would sell entire property. A fortune can be made legitimately. Write to owner.

HEYMAN GABRIEL,
209 Dauphin St., Mobile, Ala.

SELL FLORIDA LANDS.—Wholesale prices to agencies. Can retail for double wholesale price and meet competition. All overhead is profit. Neither investment nor obligation required. Easy terms to purchasers. Proceeds distributed by reliable banking institution. Several thousand acres in one body located in Palm Beach County. Substantial improvements made on tract, and groves and farms being developed. Hard-surfaced roads from railroad towns, and Dixie Highway a few miles distant. So better land in this part of Florida. Fine grove and farms on adjoining tracts. Opportunity to make big money without investment. Correspondence solicited. Florida Land Company, Stuart, Florida.

FOR SALE.—Controlling interest in a well-established bottling plant. Splendid equipment, large territory, valuable contracts. Owner not in a position to give the plant his attention. Address George H. Williamson, Citizens' Nat. Bank, Charleston, W. Va.

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TO ANYONE seeking a safe and profitable investment in land for \$30,000 I have a 100-acre tract to offer. Nothing better. J. W. McClung, Charlotte, N. C.

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WE REPRESENT clients who will furnish plans and specifications, finance and erect all large, modern mercantile, manufacturing, warehouse, R. R. and ship terminal, hospital or college buildings. Can refer to many satisfied customers. Surety Co. bond furnished. Ed. E. Walker & Co., 519 Madison Ave., Covington, Ky.

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"PRUDENTIAL" STEEL BUILDINGS for all purposes; portable one-story construction; workshops, toolhouses, storage, garages, warehouses, etc. Write for Catalog A. C. D. Pruden Company, Baltimore, Md.

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"Trade Acceptance" forms supplied. Request sample. Commercial Form Co., Passaic, N. J.

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PATENT YOUR IDEAS.—\$9000 offered for certain inventions; book, "How to Obtain a Patent," and "What to Invent," sent free upon request; send rough sketch for free report as to patentability. We advertise your patent for sale at our expense. Chandler & Chandler, Patent Attorneys, 978 F St., Washington, D. C.

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POUGHKEEPSIE, NEW YORK, offers to iron or steel industries engaged in United States Government work splendid opportunity for Eastern Seaboard location. Several plants adequate to meet demands of iron or steel work available; skilled labor guaranteed; banking facilities above average; unlimited electric power with graduated scale; New York Central and Central New England railroads; bridge connection over Hudson with West; river transportation to New York. Write Chamber of Commerce for complete data.

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WANTED—Some competent and reliable individual or firm to come to Union, S. C., and open a laundry with capacity to do all classes of laundry work. No laundry here. Several small towns within 10-mile radius. Available population for solicitation about 20,000. Address Union County Chamber of Commerce, P. O. Box 256, Union, S. C.

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BALTIMORE FACTORY AND TERMINAL SITES.—Statement of Asa G. Candler, President The Coca-Cola Co.: "Investigation convinced us that Baltimore is not only the commercial metropolis for Southern trade, but that it affords shipping opportunities both by water and rail for domestic and foreign traffic superior to any of the great cities in any section of the United States." Locate in Baltimore and derive these advantages. We can provide accommodations to meet your requirements.

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MANUFACTURING LOCATION on switch. Three-story frame building approximately 55x150 ft. on lot 100x150 ft. More land can be had if desired. Building cannot be duplicated for \$25,000. Located in Southern town. Eight railroads entering. Good labor conditions. Natural gas fuel. Cheap electric power. Water rates governed. Big bargain to get reliable manufacturing concern located here. Address No. 5141, care Manufacturers Record, Balto., Md.

FREE FACTORY SITES—On deep, navigable river, near deep-water port; also on trunkline railroad; good health, cheap labor, cheap coal, flowing artesian wells, cheap timber. Woodbine Development Co., Woodbine, Georgia.

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FOR SALE—At Old Bridge, N. J., a complete 500 H. P. boiler plant and power-house, together with an electric light plant (all in good condition), together with a lease on the site of the boiler-house and adjoining land sufficient for building a factory, with side track already installed on the property. This is an ideal location for a manufacturing concern wishing to get started in the shortest possible time. Apply to Dexter & Carpenter, Inc., 12 Broadway, New York City.

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THE UNDERSIGNED FIRM, engaged as wholesale dealers of lumber and building material, domestic and export connections, desires to increase lines of activity, and will act as brokers or manufacturers' agent in sale of other lines of dependable merchandise. We have ample facilities. Address Rawls & Avant Co., Box No. 74, Miami, Fla.

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COMPETENT ACCOUNTANT, 41 years old, 20 years' experience in double-entry bookkeeping. At present employed by large lumber corporation as chief accountant. Desires change on account of location. Want permanent position with large concern, who will appreciate merit and capability. Address No. 5143, care Manufacturers Record, Baltimore, Md.

WHO NEEDS AN ENGINEER with 17 years' experience in electrical and mechanical design and construction, as well as works manager of chemical plant? Location, New York City or New Jersey preferred. At present employed, but desires change. American, 39 years old. Address No. 5144, care Manufacturers Record, Balto., Md.

ACCOUNTANT of broad experience and proven executive ability desires permanent connection with live manufacturer. Qualified by training and experience to handle cost as well as general accounts, or to devise and install a system if necessary. J. W. Johnston, 890 Tusculum Ave., Birmingham, Alabama.

PURCHASING AGENT—Employed present corporation number of years, seeks opportunity to make more progressive connection. Married, age 48. Satisfactory references. No. 5142, care Manufacturers Record, Balto., Md.

WOULD like connection with Eastern Manufacturers of machinery, tools, supplies, etc., as representative Texas territory. Correspondence solicited. Address No. 5138, care Manufacturers Record, Baltimore, Md.

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IF ACTUALLY QUALIFIED for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such positions: executive, administrative, technical, professional; all lines. Not an employment agency; undersigned acts in direct confidential capacity, not jeopardizing present connections. Established 1910. Send name and address only for explanatory details. R. W. Bixby, 164-66 Niagara Street, Buffalo, N. Y.

COVINGTON MACHINE COMPANY, Covington, Virginia, working on war-order business, desires to increase its force quickly by adding few good machine-tool operators, three good floor erectors, inside work; also three good moulders; good summer mountain climate; good pay and opportunities for overtime. Write or wire for particulars.

WANTED—By J. V. Boxley & Co., Mullens, W. Va., steam shovel crews, dinky engineers, firemen, etc., foreman and laborers for both tunnel and outside railroad construction. Now opening large contract; long job; best wages paid.

WANTED—Man with some money to invest in box factory and manage same, located in good lumber section, in heart of a district that uses quantities of cases. Address No. 5105, care Manufacturers Record, Balto., Md.

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STEAM TUG, 81 ft. long, 16 ft. beam, 5 1/2 ft. draft. Fully equipped. Recently completely overhauled and passed by U. S. Government Inspector. Bargain. Address Box 464, Savannah, Ga.

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TWO ALLIS-CHALMERS cross-compound engines, condensing (without condensers), connected to 750 K. W., 4-wire, 3-phase, 4000/2300 volts, Westinghouse generators, complete with switchboards and exciters. These outfits must be handled quickly and can be had at approximately one-fourth of the new price. Engines or generators could be had separately. McBee Engine & Implement Co., Memphis, Tenn.

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6x15" Woods No. 401 fast-speed planer, fully equipped; flooring heads, double ceiling heads, proller and feed table, almost new.

No. 236 Berlin gang rip saw, practically new. 130 ft. 6" heavy steam pipe. 130 ft. 5" heavy steam pipe. 1000 ft. 4" water pipe. 40 H. P. center-crank engine. 8x10" side-crank engine. 1000 ft. 1 1/2" transmission rope. G. S. Patton Lumber Co., Savannah, Ga.

FOR SALE—50 H. P. high-speed automatic steam engine; 5"x7" verticle throttling engine; Standard Dryer Co.'s dryer and transfer cars, 24" gauge. Jas. G. Lacey, Hartford, Conn.

FOR SALE—Two 75-horsepower General Electric, form M, 2200 volts, 3-phase, 60-cycle, 800 R. P. M. induction motors; complete with controllers and type K-20 automatic oil switches. Offered subject to prior sale. Address Walker Electric & Plumbing Co., Columbus, Ga.

FOR SALE—1 No. 5 1/2 second-hand Merrell pipe threading machine. Belt driven. Good condition. Threads from 1 to 4" pipe, inclusive. Newtown Giant Incubator Corporation, Harrisonburg, Va.

FOR SALE—Munger gin outfit, 3 70-saw stands, good condition; 40 H. P., 50 H. P. boiler. W. S. Sample, Lexington, Miss.

FOR SALE—5 ft. Trevor Jolmer-Lockport, good condition; five new knives. Box 254, Raymond, Ga.

FOR SALE 75-HORSE-POWER BOILER. F. M. HUGHSON, ROANOKE, VA.

FOR SALE—MACHINERY IN 75-BBL. UP-TO-DATE MILK. LIBERTY MILLS, ROANOKE, VA.

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FOR SALE—Roofing and flooring mill outfit complete; in good condition; located in Eastern North Carolina. Address No. 55, 701 W. 178th St., New York City.

MACHINERY.—Complete ginning outfit, three 80-saw gins, double revolving self-tramper press, 40-horsepower engine and boiler, elevator, belts, etc. J. A. Burroughs, Chester, S. C.

HOLT CATERPILLAR TRACTOR, 60 horse-power, good mechanical and operative condition. \$1500 cash. Miller Lumber Co., Millerton, McCurtain Co., Okla.

ONE 60-saw Gullett gin, complete for operating this season, in good running order; one 5x20-inch Fry & Egan single surface wood planer, all in good shape. L. L. Shiflett, Adamsville, Ala.

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WANTED—PAPER BAGS. We want quotations on 10,000 paper meal bags, having a capacity equal to 18 inches diameter and 40 inches deep, f. o. b. Elizabethton, Tennessee. Should be sufficiently strong to hold 100 pounds of material for shipment. P. O. Box 278, Elizabethton, Tennessee.

WANTED—Two or more motor engines, to use on 2 1/2-mile mining and orehauling railroad; also rails and ore cars. W. J. Frees, 913 Littlefield Bldg., Austin, Texas.

WANTED TO BUY—Two pipe machines, direct connected, 1" to 4" and 4" to 10", Brooks Supply Co., Beaumont, Tex.

WANTED—600 H. P. water tube boiler, one or two units, 180 to 200 pounds pressure. Frank Guild, Terrell, Tex.

WANTED—300 H. P. engine and generator. Steam-electric, Corliss or four-valve. Must be in A-1 condition. Mail complete description and price to P. O. Drawer 278, Elizabethton, Tenn.

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Locomotive. Must have good brakes and be
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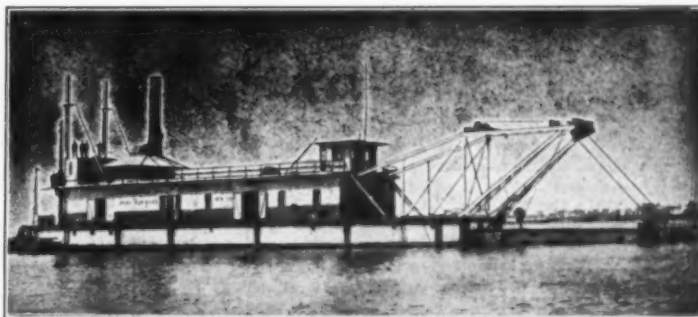
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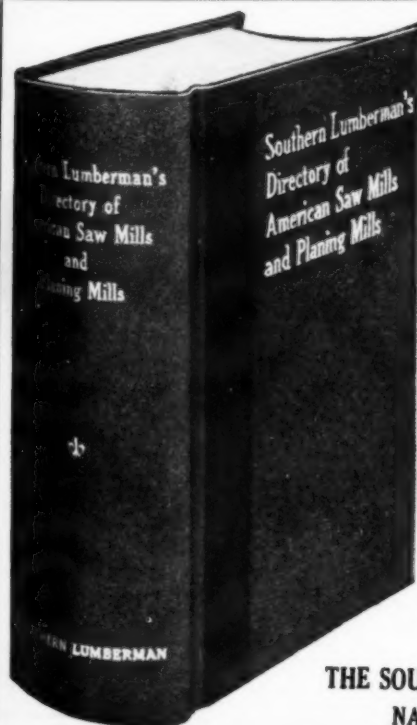
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15,000' of 3" pipe.
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- 1—Set 10-Ft. 6-In. Power Bending Rolls, with reversing mechanism hand raising and lowering attachments; top roll 12 in. dia.; bottom rolls 8 in. dia.
- 1—Chicago Pneumatic Air Hoist, 5-ton capacity, $\frac{5}{8}$ -in. cable.
- 1—McGrath Air Flue Welder, complete with 18x36 oil-burning Rockwell furnace.
- 1—Flue Cutter and Cleaner, 120 in. long, belt drive.
- 2—Sturtevant 30-in. Steel Pressure Blowers.
- 2—Heavy Cast-Iron Round Blacksmith Forge Bowls with connections, 48-in. dia.
- 1—No. 4 Long and All-stater Combination Punch and Shear, 5-in. throat; no shear attachments; have punches and dies.
- 1—Anvil, 250 lbs.
- 200-ft. 2 7-16-in. dia. Line Shaft, with pulleys and hangers.

- 1—10x16 Nagle Center-Crank Slide-Valve Engine.
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2-500 H. P. Rusk Water Tube Boilers, 162 lbs. in Ohio. Equipped with Westinghouse chain grates. Located Youngstown, Ohio.

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IMMEDIATELY AVAILABLE

515 H.P. B. & W. BOILERS

Approved for 160 lbs. pressure. B. & W. Superheaters, Roney Stokers, Overhead Steel, Suspensions, and Columns for two-boiler settings.

THE RHODE ISLAND CO.
PROVIDENCE, R. I.

W. C. SLADE, Supt. of Power & Lines.

Boilers For Sale

1-27"x18" H. T. with all fittings and stack in A-1 condition. 1/2" shell, Ohio inspection.
1-John McGowan & Co. Hot Water Heater and Purifier for 150 H. P. boiler; 1 boiler feed pump for above boiler.
1-New Ohio Std 50 H. P. Vertical Boiler, with all fittings and stack, 150 lbs. pressure.
1-New 30 H. P. 42"x8" 9" Vertical Boiler for hauling engine, 125 lbs. pressure, with all fittings and stack.
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PORTSMOUTH, OHIO

BARGAINS For Quick Sale

One 125-H.P. Scotch-Marine boiler, complete, 125 lb. Insurance.
One No. 9 Jeffery-Hammer mill.

Five hoisting engines and boilers.
One 25-H. P. single drum gasoline hoist, 36" drum.

SOUTHERN MACHINERY CO.
KNOXVILLE, TENNESSEE

BOILERS

H.P.	Make.	Pressure.	Each.
One 400	Heine	160	\$6000
One 300	Heine	175	6000
One 225	Heine	175	4000
Three 200	Heine	160	2400

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BOILER FOR SALE

A 100-horse-power brick-in Boiler, manufactured by Walsh & Weldner, Chattanooga, Tenn. Boiler in use about two years and in first-class condition. Address

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BOILERS

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10 250 H. P. Wicks Vertical Water-Tube Boilers, 150 lb. pressure.
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1 500 H. P. B. & W. Boiler, 150-lb. pressure.
2 400 H. P. B. & W. Boilers, 150-lb. pressure.
4 250 H. P. B. & W. Boilers, 150-lb. pressure.
1 275 H. P. B. & W. Boiler, 150-lb. pressure.
2 200 H. P. Heine Boilers, 150-lb. pressure.
1 425 H. P. Heine Boiler, 150-lb. pressure.
1 400 H. P. Stirling Boiler, 150-lb. pressure.
4 72"x18" Tubular Boilers, 125-lb. pressure.
4 350 H. P. Stirling Boilers with Superheaters, 200-lb. pressure.
4 66"x6" Tubular Boilers, 125-lb. pressure.
3 48"x150" Steel Smokestacks.
"And other makes and sizes."

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1409 Harris Trust Bldg., Chicago, Ill.

FOR SALE

Two 325 and one 525 H. P. B. & W. Boilers; complete with steel headers; 160 lbs. steam. One 300 H. P. Stirling Boiler; complete with stack; absolutely perfect, 6 years old, 150 lbs. steam. Two 100 H. P. Hor. R. T. Boilers, 125 lbs. steam. Two 42 Stacks, 100 ft. each, like new. 15,000 ft. 4" Wrt. Pipe, with threads and nipples. 25 tons each 4 and 6" Cast-Iron Water Pipe, with hydrants and etc. 700 Boiler Tubes, 16 and 18 ft. long, 4" diameter. 12x12 Upright and Horizontal Engines. 10x10 Belted Ingersoll-Rand Air Compressor. Three Round Closed Tanks, 5 ft. x 20 ft. long. 5000 ft. NEW 3/4 Galvanized Wire Rope. 90 reels 1 1/4 to 2 1/4" diameter Wire Cables, for hoisting, skidding, guys or dredge work. 40 all-steel, 36" Flat Cars, 54"x56" wide and long, almost new. 16x30 and 18x24 Horizontal Slide-Valve Engines. Lot Shafting, Hangers and Pulleys. Four 8" Automatic Steam Valves, excellent condition. Lot 8" Wrt. Pipe, straight and bends.

Easton Machinery Co.
DRAKE BLDG., EASTON, PENNA.

For Sale

Three 72"x16" High-Pressure Return Tubular Boilers; 72 4" tubes; all fittings; Georgia shipping point. \$1200 each.

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1424 Jefferson County Bank Building
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(2) 150 H.P. Geary Water Tube

BOILERS

Insured 150 lbs. with Roney Stokers, Breeching and Stack.

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ALEXANDRIA, VA.

BARGAINS

1-150 H. P. Tubular Boiler, steel casing, 125 lbs. pressure.
1-80 H. P. Marine Type Boiler, on skids, 125 lbs. pressure.
1-1280' Sullivan WE2 Air Compressor.
1-60 K. W., 125-volt D. C. Engine and Generator Outfit.
4-125 H. P. Boilers, return tubular, 120 lbs. pressure.
HODGSON MACHINERY COMPANY, Knoxville, Tenn.

ENGINE FOR SALE

One 150 H. P. Slide Valve Engine, complete. In first-class condition. Can be seen in Richmond, Va.

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Electric Elevator complete; never been used. Capacity 3500 pounds. Speed 25 ft. per minute. Platform 8 ft. wide by 13 ft. long, suitable for lifting light automobile two or three-story building.

Also,
Electric Freight Elevator. Platform 6 ft. x 6 ft. Capacity 2500 pounds. Speed 50 ft. per minute. Address

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1-60 H. P. Sturtevant, shunt wound, 427/495 R. P. M., D. C.
1-60 H. P. G. E., type DLC, 485/850 R. P. M., D. C. Motor.

NATHAN KLEIN & COMPANY
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FOR SALE

One 12"x36" Green Engine in A-1 condition for immediate shipment.

Cocker Machine & Foundry Co.
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FOR SALE USED EQUIPMENT

1-150 H. P. Horizontal Tubular Boiler, with fixtures complete.
1-125 H. P. Engine, Houston, Stanwood & Gamble make.
1-Pittsburg Feed-Water Heater for 150 H. P. boiler.
1-Steel Derrick, 10-ton capacity, 115' mast, 112' boom, bull wheel.

1-30 H. P. Double-Drum Hoisting Engine for use with Derrick.

1-22 H. P. "American" Hoisting or Slew-ing Engine for handling above Derrick.

1-No. 5 Austin Crusher.

South Side Foundry & Machine Works

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CORLISS ENGINE For Sale

One used 16 x 36 heavy duty left hand Corliss Engine, 150-H.P. at 125 pounds steam, 80 revolutions. Flywheel pulley 14 ft. x 24 inch face and belt pulley 11 ft. x 20 inch face on engine shaft. Immediate delivery.

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Contractors Machinery

1-18x42 Heavy-Duty Corliss Engine, rope drive.
1-22x42 Heavy-Duty Corliss Engine, rope drive.
1-50 H. P. Fairbanks-Morse Oil Engine.
1-120 K. W., 2200-volt Bullock Pedestal Motor Generator, 3-phase, 900 R. P. M.
100 H. P., 80 H. P., 70 H. P. Tubular Boilers.
1-1000 H. P. Cochran Feed Water Heater; Pumps, Tanks.
2-72x100-ft. Smokestack, 3/4x16 steel.

Harlan & Harlan Machine Works
Kansas City, Mo.

FOR SALE

One Engine, made by Lane & Bodley, 18x48 RH, 18 ft. Fly Wheel 15 Ropes. Speed 175 Rev. 275 H. P.

One 10,000 gallon water tank, complete with tower and one 20,000 gallon water tank, complete with tower.

For further particulars address

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Large stock of new and second-hand, single and double—attractive prices.

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If you wish to keep posted on the progress of the South, read the MANUFACTURERS RECORD
Price \$5 a year, or six months for \$2.50.

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50 to 2000 HORSEPOWER
EVERY ENGINE PERFECT
INSPECTIONS EASILY ARRANGED
My Service Reaches from Coast to Coast
H. M. BRUCH, Engine Specialist
400-401 Gridley Bldg., SYRACUSE, N. Y.

FOR SALE USED MACHINERY

In Good Condition

1-150 H. P. Wheland Twin Engine.
2-75 H. P. Wheland Engines.
1-50 H. P. Wheland Engines.
1-40 H. P. Wheland Heavy-Duty Engine.
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1-50 H. P. Haberkorn Engine.
1-42 H. P. Shepard Vertical Engine.
2-25 H. P. American Blower Engines.

SAW MILL MACHINERY

1-32" Wheland Acme Saw Carriage.
28-Live Log Boils, with angle boxes, gears and shafting.
35-23" to 72" Used Circular Saws.
MISCELLANEOUS
1-2" Forbess Pipe-Threading Machine.
1-lot 16" to 24" C. I. Fittings, Valves, Elbs, Tees and Flanges.

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Drawer C CANTON, N. C.

FOR SALE

2-20 H. P. Byers, D. C., D. D. Hoisting Engines, with boilers and swinging gear, if preferred. Splendid condition.
MACHINERY & SUPPLY CO.
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FOR SALE

1-12x12 1/2 x 12 Ingersoll-Rand Compressor, Piston Inlet.
1-7x8 Chase Automatic Engine, direct connected to 8 K. W., 1250 R. P. M. Bullock direct-current Generator.
1-Terry Turbine, direct connected to 50 K. W., 60-cycle, 3-phase alternator, with direct-connected exciter.

Smith & Whitney, S. W. Life Bldg., DALLAS, TEX.

FOR SALE

One Brown Corliss Engine, 14x36, in splendid condition. \$750
Line of Shafting, with bearings. 100
55 ft. Double Leather Belt, 17 in. wide and very good. Sold only with engine. 150
One Horizontal Tube Boiler, 60 in. x 18 ft.; 44-4 flues; in good condition. 300
Address
J. ANDREW CAIN Versailles, Ky.

FOR SALE Mining Machinery New and Unused

Good make Mill and Power Plant, cost \$90,000.00 on C. B. & Q. R. R. near Deadwood, So. Dak.

3 Boilers, 66x18 ft.
1-300 H. P. Engine.
1 Generator, 75 K. W., 250 volts, 300 amps.
1 No. 6 McCully Crusher.
1 No. 3 McCully Crusher.
1 Ore Conveyor.
40 Stamps complete, Feeders, Motors, Tables, Copper Plates, Shafting, Pulleys and Belts.

5 Wilfley Concentrating Tables, Belts and Shafting.
3 Redwood Cyanide Tanks.
2 Redwood Solution Tanks.
2 Redwood Storage Tanks.
2 Redwood Gold Tanks.
2 Iron Zinc Boxes.
1 Triplex Pump, 8x10.
2 Triplex Pumps, 7x8.

Various tools, pipes, belts and shafting. Has treated less than 1000 tons of ore.

PRICE \$35,000.00

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J. M. HODGSON
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or

Corliss Engines, Water Tube Boilers and Direct Connected Unit

DIRECTED CONNECTED UNIT

- (1) Engine, Rice & Sargeant, Simple, Non-Condensing, 30x48", 750 H. P. Generator, Westinghouse, D. C., 10-pole, 550 V., 90 R. P. M., 500 K. W.

ENGINES

- (3) Allis-Corliss, Simple, Non-Condensing, 30x60".

GENERATORS

- (3) Westinghouse, D. C., 4-pole, 550 V., 500 K. W.

LEATHER BELTS

- (3) 53", 140' long, Double Leather Belts.

BOILERS

- (8) Campbell & Zell Water Tube Boilers, 12 tubes high and 12 tubes wide, nominal rating 275 H. P. each; set in batteries of two each, steam pressure 150 lbs. each.

- (1) Campbell & Zell Water Tube Boiler, 9 tubes high and 12 tubes wide, nominal rating 225 H. P., pressure 150 lbs.

PUMPS

- (3) Worthington Duplex Feed, 9"-5 1/4"x10".

- (1) Knowles Deep Well, 12"-7 1/4"x36".

- (1) Westinghouse 9 1/2" Air Pump.

- (2) Centrifugal Circulating, Direct-Driven, 12" Pumps, each driven by a 70 H. P. General Electric 550-volt direct-current motor, speed 500 R. P. M.

- (2) Horizontal 13x8" Worthington Dry Vacuum Pumps, direct driven by a 12 H. P. General Electric 500-volt direct-current motor, speed 300 R. P. M.

MISCELLANEOUS

- One (1) Berryman Feed Water Heater, 5"x17".

- One (1) Locke Damper Regulator, complete with Damper Operating Mechanism.

- One (1) 15-ton Traveling Crane, 70' span, with Hand-Operated Bridge and Hoist.

- Two (2) Perfection Oil Filters, 100-gallon capacity each.

BOSTON IRON & METAL CO.

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IMMEDIATE SHIPMENT

NEW APPARATUS

NEW ROTARY CONVERTER

200 Kw., 1200 r.p.m., interpole 60-cycle rotary, with three self-cooled transformers, 2300 or 4000 volts, 275 volts direct current output, with complete switchboard equipment.

DIRECT CURRENT MOTORS

1-15 H. P., 115 volt, 1150 r.p.m.

3-15 H. P., 230 volt, 1150 r.p.m.

3-20 H. P., 230 volt, 1150 r.p.m.

60 CYCLE MOTORS

H.P.	Rpm.	Make	Type	Volts	Phase	Starter
15	1130	Allis-Chalmers	Sq. Cage	220	3	Auto starter
20	1800	Allis-Chalmers	Sq. Cage	220	2	Auto starter
25	1200	Gen. Elec.	Slip Ring	220/440	3	Drum controller
25	900	Gen. Elec.	Slip Ring	550	3	Drum controller
35	720	Gen. Elec.	Slip Ring	220/440	3	Drum controller
40	900	Allis-Chalmers	Slip Ring	220/440	3	Drum controller
50	900	Allis-Chalmers	Slip Ring	220/440	3	Drum controller
75	1750	Allis-Chalmers	Sq. Cage	440	3	Auto starter
100	720	Gen. Elec.	Slip Ring	2200 or lower	3	Drum controller
100	600	Gen. Elec.	Slip Ring	2200 or lower	2	Drum controller
100	900	Gen. Elec.	Slip Ring	220/440	3	Drum controller
125	900	Allis-Chalmers	Slip Ring	220/440	3	Face plate
150	600	Gen. Elec.	Slip Ring	220/440	3	Drum controller
200	600	Gen. Elec.	Slip Ring	2200 or lower	3	Drum controller

USED APPARATUS

1-60 Kw., 1200 r.p.m., synchronous motor generator set, with direct connected exciter, 2300 volts, 2 or 3 phase, to 275 or 550 volts direct current output, with switchboard.

1-300 Kw., 3-bearing belt driven 450 r.p.m., 275 or 550 volts direct current generator.

1-400 H. P., 375 r.p.m. compound wound direct current motor, 275 or 550 volts.

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Steam and Electrical Equipment

90 West Street, New York City

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1876 THE MACHINERY HOUSE OF THE EAST 1918 FRANK TOOMEY, Inc.

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- 10"x4' Climax.
14"x6' New Carroll Jamieson Quick Change.
14"x8' New Carroll Jamieson Quick Change.
4-15"x8' New Sidney D. B. G. Quick Change, swing 17".
7-17"x8' New National Quick Change.
17"x8' New Sidney D. B. G. Quick Change, swing 19".
18"x8' Rahn Mayer.
18"x8' Flather.
18"x8' Schumaker Boye.
18"x8' Reed.
21"x20' Reed.
32"x24' Fay & Scott.
24"x48' McCabe Double Spindle.

TURRET LATHES

- 2"x24' Jones & Lamson Geared Head.
2-24' Davis Boring and Chucking Lathes.
1-3/4" S. & K. Back Geared Wire Feed.
2-No. 1 Bardon & Oliver Hand Screw Machines.

HORIZONTAL BORING MILLS

- 4" Bar Niles Knee Type.
2 1/2" Bar Warney & Swasey Knee Type.

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- No. 2 Kempsmith New Universal, with vertical attachment.
No. 1 1/2 Cincinnati Universal.
No. 1 U. S. New Hand Miller.

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- 4-14" New Steptoe.
1-14" Steptoe.
6-16" New Steptoe B. G.
2-24" New Steptoe B. G.
16" Bement Traveling Head.

GRINDERS

- 10"x30" Brown & Sharpe.
10"x24" Iroquois.
10"x20" Bath.

- No. 1 New Fraser Universal.
No. 1 New Grand Rapid Universal Reamer and Cutter.
No. 2 Grand Rapid Universal Reamer and Cutter.
No. 100 New Wells Universal Reamer and Cutter.
No. 3 B. & S. Universal Reamer and Cutter.

RADIAL DRILLS

- 42" Niles Plain Cone Drive.
30" Universal Plain Cone Drive.
42" New Canedy-Otto.

DRILLS

- 36" New Superior Sliding Head.
32" New Superior Sliding Head.
30" G. & E. Sliding Head.
2-28" New Superior Sliding Head.
2-25" New Superior Sliding Head.
25" New Superior Sliding Head, with tapping attachment.
24" New Superior Stationary Head.
21" New Superior Stationary Head.

- 20" New Superior Stationary Head.
20" New Champion Stationary Head.

HAMMERS

- 350-lb. Sellers Single Frame Steam.
250-lb. New Little Giant Belt.
4-100-lb. New Little Giant Belt.
3-50-lb. New Little Giant Belt.
4-25-lb. New Little Giant Belt.

PLANERS

- 36"x36"x8' Gray, two heads.
30"x30"x10' Fitchburg, one head.
24"x24"x8' Gray, one head.

NUT TAPPERS

- 1 1/2" to 2" Six-Spindle National.
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3/16" to 1/2" Five-Spindle National.

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- 10" Newton Power Feed to Rotary Table.

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A. C. OIL ENGINE UNIT

- 1-375 K. W. Fort Wayne, 3-phase, 60-cycle, 2300-volt Alternator, direct connected to one pair of Diesel Vertical Oil Engines.

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- 1-110 H. P. De Laval Steam Turbine, direct connected to two 37 1/2 K. V. A. General Electric, 2300-volt, 60-cycle, 2-phase Alternators, with direct-connected exciter.

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- Large stock of A. C. and D. C. Motors, new and used, 1/2 to 200 H. P.

HORIZONTAL RETURN TUBULAR BOILERS

- 150 H. P. 72"x18" Coatesville, with Murphy Stoker, 125 lbs. steam pressure.
4-150 H. P. 72"x18" Vulcan Iron Works, 125 lbs. steam pressure; complete with stacks and steam blower.
1-150 H. P. 66"x20" Sotter Bros., 125 lbs. steam pressure.

WATER TUBE BOILERS

- 1-150 H. P. Babcock & Wilcox Water Tube Boiler, 125 lbs. steam working pressure, with 80 ft. of 36" dia. stack, heater, feed-water pump and damper regulator; complete plant.
2-250 H. P. Babcock & Wilcox Water Tube Boilers, 150 lbs. steam working pressure.

AIR COMPRESSORS, BELT DRIVEN

- 1-12 1/2"x12 Ingersoll-Rand, belt driven, 305 cu. ft. capacity.
1-22"x13"x18" Laidlow-Dunn-Gordon, 2-stage, belt driven, duplex, 1140 cu. ft. capacity.

AIR COMPRESSORS, STEAM DRIVEN

- 20"x20"x20" Ingersoll-Sargeant, class "A," straight line, steam driven, 900 cu. ft. capacity.
15"x15"x14" Hall Steam Pump Co., steam driven, 600 cu. ft. capacity.
12"x12"x12" Laidlow-Dunn-Gordon, 400 cu. ft. capacity.
10"x10"x12" Bury, single, straight line, steam driven, 167 cu. ft. capacity.

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PHILADELPHIA, PA.

NEW MOTORS

Immediate shipments from Atlanta Stock

One each 5, 7½, 10, 25 and 30 H. P. General Electric 220 Volt 3-phase, 60 cycle motors. Offered subject to prior sale.

Seeger-Walraven Co.

Machinery and Mill Supplies
38 W. Alabama Street
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450 K. W. 250 Volt D. C. Crocker-Wheeler 135 RPM Generator direct connected 29x36" Nordberg "UNIFLOW" steam engine with complete steam and electrical accessories.
IMMEDIATE SHIPMENT.

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75 K. W. 1200 R. P. M., 230-Volt, 60-Cycle, 3-Phase Fairbanks-Morse.
125 K. W. 600 R. P. M., 2300-Volt, 60-Cycle, 2-Phase Allis-Chalmers.
These are belted, revolving-field type, in excellent condition; also large stock New and Used Motors and Generators.

V. M. Nassbaum & Co. Fort Wayne, Ind.

FOR SALE—Electric Motors

To make a specialty of, and have the largest stock of SECOND HAND electric MOTORS and GENERATORS in America, and buy and sell, rent, exchange and repair electrical machinery of all kinds.
GREGORY ELECTRIC
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Over 200 Dynamos and
Motors in Stock

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MACHINE TOOLS**

5 Desirable Machines in Philadelphia—Immediate Delivery

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36"x50"x12" L. W. Pond Planer, one swivel head, with power feeds, on cross rail, power raise and lower to cross rail.

BORING MILL.

4", actual swing 53". Betts Vertical Boring Mill, one swivel graduated head on cross rail; table measures 48" in diameter.

Besides, we have a large stock of new and used Machine Tools for immediate delivery.

ELECTRIC MOTORS

We have just purchased all of the motors which have been released by the Knickerbocker Ice Co. in all their plants in the Boroughs of Manhattan and Brooklyn, N. Y., due to change in their electrical service. These motors are all direct current of the best makes and in excellent condition, voltages 110 and 220-volt, as per list below.

PLANT NO. 1.

No.	Make	H.P.	Volts	Speed
4	Electro Dynamic	7½	110	500
1	General Electric "CVC"	2	115	1100
1	Payne General Electric "CVC"	1	110	900
2	Fairbanks	4	110	350
1	Westinghouse	5	110	1300
2	Hawthorne "CVC"	15	110	925

PLANT NO. 2.

No.	Make	H.P.	Volts	Speed
3	General Electric "BR"	35	220	1150
3	General Electric "CVC"	25	220	1200
1	General Electric "DLC"	40	220	1325
4	General Electric "BR"	7½	220	950
2	General Electric "CVC"	7½	220	1300
2	General Electric "CVC"	10	220	650
2	Crocker-Wheeler	1	220	1300
2	General Electric "BR"	5	220	1250
1	General Electric "BR"	15	220	700

The greater portion of these motors are now in our warehouse for immediate delivery. With these motors and our present stock we are in a position to serve you quickly.

THE O'BRIEN MACHINERY CO.

119 North Third Street
Long Distance Bell Telephone, MARKET 2121

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Cable Address, O'BRIEN, PHILADELPHIA

**75 HORSE MOTOR
16" OSCILLATING FANS**

75 H. P. Allis-Chalmers, three-phase, 60-cycle, 440-volt, 865 revolutions, squirrel-cage motor, with starter and pulley; A-1 condition, like new; immediate shipment.
16" 4-blade Robbins & Myers Oscillating Desk and Bracket D. C. Fans, 110 Vs.; used, but in fine condition. Each.....\$12.00
Call on us for what you want in electrical equipment or supplies. Send us a list of what you have for sale.

**Piedmont Electric Co.
Asheville, N. C.****ENGINES—GENERATORS.**

1—500 K. W., A. C., 2300-volt, 3-phase, 60-cycle, Westinghouse, direct connected to four-valve compound engine, 300 R. P. M.
1—250 K. W., 2300-volt, D. C. Engine and Generator.

GENERATORS.

1—100 K. W., D. C., 110-125-volt, 250 R. P. M., 2 bearings, rheostat, half coupling.
1—75 K. W., D. C., 250-volt, 200 R. P. M., 2 bearings, rheostat, half coupling and switchboard.

BELTED ENGINES.

1—5"x12" Buckeye Engine.
1—16½"x30" Buckeye Engine.
1—20"x48" Lane-Bodley Corliss.

WATER TUBE BOILERS.

2—150 H. P. B. & W.
1—400 H. P. B. & W.

COMPRESSOR.

1—18"x18" Duplex Belt-Driven Laidlaw-Dunn-Gordon Air Compressor.

DOUBLE LEATHER BELTING

As follows:
1—Piece 18" wide 45' long.
1—Piece 20" wide 45' long.
1—Endless Belt 30" wide 103' long.

MOTORS.

1—75 H. P., A. C., 2300 or 440-volt, 60-cycle, 3-phase. New.

PUMPS.

1—4½"x4" Fairbanks-Morse Duplex Power Pump.

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NATHAN & KLEIN CO.
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Producer Gas Engine Plant**Complete, For Sale, Immediate Delivery**

Consisting of two Louis Pettibone Producers each having 1000 K. W. engine capacity—two 500 K. W. General Electric 2200-volt 60-cycle three-phase generators, each direct connected to Snow Pump Company Producer Gas Engines.

Plant complete and in good operative conditions. Address

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WILSON MACHINERY CO.

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**A. C. UNITS 3 PHASE
60 CYCLES**

K. W. Make Volts Rev. Engine
75 G. E. 2300 — Poppet Valve Chandler Taylor
100 G. E. 2300 3600 Curtis St. Turbine
100 Westge. 2400 225 13x15 4-Valve H'g.
120 Westge. 2400 225 14x15 4-Valve H'g.
125 Allis Any 277 13x14 Ideal
150 Westge. 2400 225 19x18 Uniflow H'g.
150 Westge. Any 257 16x21x16 Westge. Vert. C. C.
150 West. El. 2300 200 Simple H. D. Corliss
200 G. E. 2300 3600 Curtis Hor. Turbine
240 G. E. 440 — McL. & Soy. C. C. 4-Va.
2400 Westge. Any 3600 Westge. St. Turbine Hor.
500 Allis 2300 3600 Allis Steam Turbine
2400 G. E. 2200 150 Rice & Sarg. C. C. Cor.
2750 Westge. 2300 58 Allis Corliss C. C.
All above generators can be reconnected for 440-220 Volts.

**D. C. UNITS—250 Volts
125**

K. W. Make Volts Rev. Engine
2 800 Ft. Wayne 250 120 Erie City 4-Va.
550 Allis 250 100 Allis Vert. C.C.
3 500 Ft. Wayne 250 60 22 & 38x48 Ham. C.C.H.
400 G. E. 250 120 18-36x42 Tand. Com. Cor's.
300 G. E. 250 185 R. Wood C. C.
275 G. E. 250 150 25x26 Harr'g
200 Sprague 250 100 20x36 Corliss
200 Allis 250 120 14 & 22x30 Allis C. C. Cor.
150 Goodman 275 210 18x19 Ridgway
100 G. W. 250 250 Erie Ball Tand.
2 75 Westge. 250 270 14x14 Payne

Oil Engines**American Diesel Complete**

120—170—225 H. P. Belted.
2—150 K. W. 2300 Volt A. C. dir. conn. to 225 H. P. Diesel.
3—150 K. W. 250 Volt D. C. dir. conn. to 225 H. P. Diesel.
1—350 K. W. 2300 Volt A. C. dir. conn. to 450 H. P. Diesel.

ENGINES

30x60 Allis; 28x48 Brown Corliss; 26x48 Allis; 22x42 Vilter Corliss; 18x36, 16x36 St. Louis Corliss, practically new; 14x36, 12x36 Murray Corliss, excellent condition.

BOILERS

H. P.	Press. Lbs.	H. P.	Press. Lbs.
48x14	125	150 Helne	150
60x16	125	200 Helne	150
2-66x16	125	2-300 Wicks. Vert.	150
72x16	125	2-375 Stirling	175
2-72x18	125	2-483 Helne	200
72x20	125	2-500 Helne	150
4-72x22	125	615 Stirling	150
2-125 B. & W.	150		

This is only a partial list. Let us know your exact requirements; we probably have it.

Selections From Our Stock**3-phase, 60-cycle Motors**

Qu.	H.P.	Make	Volts	Type	Speed
1	10	Cr.-Wh. (with resistance type starter)	550	Q	1800
1	15	G. E.	220	I	900
1	15	Westgh.	220		1155
2	15	G. E.	NEW	KT	900
2	15	Fbks.-M.	220/440	KBV	1200
2	20	Westgh.	220	CS	1160
50	20	Fbks.-M.	220/440	KBV	1200
13	25	Wagner	220/440	BP	1120
2	30	Wagner	NEW		850
1	35	G. E.	220	KT	600
1	35	Triumph	220/440		900
1	35	G. E.	NEW	M	900
1	35	Westgh.	220		1170
1	40	Westgh.	NEW	CS	870
1	40	Wagner	NEW	220/440	BP
1	40	Fbks.-M.	220		850
1	50	Triumph	220		720
1	50	Westgh.	220		850
1	75	Westgh.	NEW	CS	720
1	100	Westgh.	440		1200
1	100	G. E.	550	K	600
1	100	G. E.	NEW	M	600
1	125	G. E.	2200	L	600
1	150	G. E.	NEW	M	580

GEORGE SACHSENMAIER CO.

Office and Salesrooms, 141-43-45 N. Third St
Warehouses and Shop, 928-30-32 N. Third St.

PHILADELPHIA

All kinds Motors and Generators in stock.

D. C. MOTORS

220 VOLTS

In Stock

Immediate Shipment

No.	H. P.	Make.	Speed.
1	1	Sturtevant	1400
2	2	Sturtevant	1250
1	2	Sturtevant	1000
1	3	Westinghouse	1650
1	3	Sturtevant	1500
1	5	Sturtevant	1000
1	5	Westinghouse	1050
1	10	Sturtevant	900
1	15	Sturtevant	800
1	15	Allis-Chalmers	800
1	25	Sturtevant	900

All shunt wound and complete with slide rails, pulleys and Cutler-Hammer starters. Fine condition.

K. L. Jones Machinery Co.

Atlanta, Ga.

Immediate Delivery

1—50 H. P. 2-phase, 60-cycle, 220-volt, squirrel-cage Fairbanks-Morse Motor, with pulley, base and brand-new starting box.

1—50 K. W., 2200-volts, R. F., Westinghouse, 1200 R. P. M., 13.1 ampere, 3-phase, 60-cycle, with base, pulley, switchboard and exciter.

(Send for list of apparatus in stock)

GEO. F. MOTTER'S SONS

Steam & Electrical Engineers
YORK, PENNA.

Do you receive our Stock Sheet Monthly? We have a complete stock of Motors—Both A. C. & D. C.—Ranging from 1 to 200 H. P.

Wire us—Write us—Phone us.
We are at your Service.

DUQUESNE
New and used Electrical Equipment
Electric & Mfg. Co. Inc.

Write, wire or 'phone our nearest office:
PITTSBURGH, PA.
or 230 S. LaSalle Street, CHICAGO, ILL.

Dynamos and Motors

One 50 H. P., 230-volt, 60-cycle, 3-phase, 1120 R. P. M. Westinghouse Motor complete.
One 15 K. W., 125-V. Eddie Generator to Ideal horizontal center-crank steam engine.
One 50 K. W. and one 100 K. W., 125-250-volt, two or three-wire General Electric Generators, direct connected to Ball-Wood center-crank steam engines.

Write for list of other machines.

S. J. STEWART (ELECTRIC)

312 Carondelet St. NEW ORLEANS, LA.
Long Distance Phone M2301-2302.

We Operate the Largest Electric Repair Shop South

REBUILT MACHINERY ALL IN STOCK

BOILERS: 2-72x18; 2-72x16; 3-66x16; 1-60x16; 1-54x14; 2-48x16; 2-48x14.

BOILER TUBES: 20,000 ft. 4"; 10,000 ft. 3 1/2"; 5000 ft. 3".

ENGINES: 12x30 Lane & Bodley Corliss; 15x16 Nagle; 14x16 Buckeye; 2-14x21 Lane & Bodley; 14x18 Chandler & Taylor; 12x18 Atlas; 13x10 Harrisburg; 11x13 Russell; 10x14 Chandler & Taylor; 9x12 Nagle; 10x12 Erie; 9x4 Allfree; 8x8 Orr & Sembower; 6x8 Nagle.

LATHES: 14"x6" Flatthurs; 16"x6" Lodge & Shipley; 15"x4" 9" Sebastian; 16"x6" Reed; 16"x8" Gray.

MOTOR-GENERATOR SETS: 1-50 K. W. Westinghouse, 125 volts Generator, direct connected to 75 H. P. Westinghouse 3-phase, 60-cycle, 2200-volt motor; 1-17 1/2 K. W. Bullock, 125-volt Generator, direct connected to Westinghouse 3-phase, 60-cycle, 220-volt motor.

GENERATORS-60-CYCLE: 175 K. W. Westinghouse, 3-phase, 2200 volts at 900 R. P. M.; 150 K. W. G. E., 3-phase, 220 volts at 900 R. P. M.; 85 K. W. Allis-Chalmers, single phase, 2200 volts at 900 R. P. M.; 90 K. W. Electric Machinery Co., 3-phase, 2300 volts at 900 R. P. M.; 75 K. W. Westinghouse, 3-phase, 2200 volts at 720 R. P. M.; 75 K. W. Western Electric, 3-phase, 240 volts at 1200 R. P. M.

MOTORS-3-PHASE, 60-CYCLE: 100 H. P. New G. E., 220 volts, 900 R. P. M.; 50 H. P. New G. E., slip ring, 220-440 volts, 900 R. P. M.; 2-50 H. P. New G. E., 220-440 volts, 900 R. P. M.; 35 H. P. New G. E., slip ring, 220-440 volts, 1200 R. P. M.; 30 H. P. New G. E., 220 volts, 1200 R. P. M.; 30 H. P. F. & M., rebuilt, 220 volts, 1200 R. P. M.; 2-25 H. P. New G. E., 220-440 volts, 1200 R. P. M.; 20 H. P. New G. E., 220 volts, 1200 R. P. M.; 10 H. P. New G. E., 440 volts, 1200 R. P. M.

MOTORS-D. C., 250 VOLTS: 55 H. P. G. E. at 900 R. P. M.; 30 H. P. Northern at 600 R. P. M.; 25 H. P. Fischer at 500 R. P. M.; 20 H. P. Crocker-Wheeler at 750 R. P. M.; 10 H. P. Jantz & Leist at 900 R. P. M.; 10 H. P. Browning at 1000 R. P. M.; 10 H. P. Cincinnati Electric at 1000 R. P. M.; 5 H. P. Triumph at 1550 R. P. M.; 5 H. P. Triumph at 125 to 1450 R. P. M.; 3 H. P. Bullock at 850 R. P. M.; 2-3 H. P. Triumph at 1500 R. P. M., direct connected to swing saws.

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The Randle Machinery Co. 1734 Powers St., Cincinnati, Ohio

Brick Machinery For Sale

One 60 thousand capacity Chambers Brick Machine. Chambers Channel Iron Dry Kiln Cars, Transfer Cars, Clay Cars, Pug Mill, Disintegrator, Tank and Oil Pumps, Engines, Machinery for complete plant.

HARTFELDER-GARBUTT MACHINERY COMPANY

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MILLS AND RAILROADS

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Buyers of Scrap Iron and Metals

Complete Plants Purchased

BALTIMORE MARYLAND

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The Bourse
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Used Refrigerating Machinery bought, sold and exchanged.

Ice Plants complete and erected, 3 to 150-ton capacity; all makes; belt and steam-driven.

Refrigerating Plants for butchers, grocers, ice-cream manufacturers, etc. Some fine bargains; 3 to 50-ton; electric or belt-driven.

Ice Tanks-wood and steel; Ice Cans, 200 and 300-lb. sizes. Used Fittings, Valves, etc.

Refrigerating Machines, Raw Water-Ice Systems, Pumps, Boilers, Motors, etc.

We want York or Frick second-hand 25-ton Steam Ice Plant, complete. 15-ton Steam-driven Refrigerating Machine.

SECOND HAND BRICK MACHINERY FOR SALE-Cheap for Cash

f. o. b. cars Sildell, La., Second-Hand Brick Machinery; Chambers No. 8 Pug Mill, Brick Machine, Automatic Cutter, all good condition. Address

SOUTHERN CREOSOTING CO., Ltd.
Sildell, La.

FOR SALE

1-18"x8" Hendy quick-change Lathe, with chuck.
1-21"x21" Field Lathe, with chuck.
1-14"x8" Porter Lathe.
1-20" Drill Press.
1-28" Drill Press.
1-20x20x42" Planer.
Various other Shop Tools. Write for wants.

Machinery & Supply Co. Greensboro, N. C.

Wanted -- For Sale

Steel Buildings.
Electric, Air and Hand Hoists.
Cranes, Electric and Hand.
Blowers, Exhausters, Compressors.
Brass-Melting Furnaces.
Foundry Equipment, Cupolas.
New and used.
We buy and sell.

THE CLIFTON-PRATT CO.
CINCINNATI, O.

IMMEDIATE DELIVERY

1-Complete Power Plant, consisting three 800 K. W., 25-Cy., 350-Volt, 3-Ph. G. E. engine sets, water tube boilers, sur. condensers, etc.
1-800 K. W., 480-V., 60-Cy., 3-Ph. C. C. Engine Set.
1-312 K. V. A., 2300-V., 60-C., 3-Ph. Allis-Terry Turbine with condenser and auxl. Complete plant.
1-1000 K. W., 600-V., 60-Cy., 3-Ph. Allis Turbo.
1-1500-2500 K. W., 2400-V., 60-C., 3-Ph. Westge. Turbo.
1-500 K. W., 600-V., 60-Cy., 3-Ph. low-pressure Turbo.
1-300 K. W., 2300-V., 60-Cy., 3-Ph. Westge. mixed pressure Turbo.
1-125 K. W., 480-V., 60-Cy., 3-Ph. Non-Cond. Turbo.
1-1000 K. W., 575-V. Ry. Eng. Set.
1-550 K. W., 250-V., C. C. Eng. Set.
1-500 H. P., 2300-V., 60-Cy., 3-Ph., 450 Rev. G. E. Motor, with resistance.
1-150 H. P., 1200 R. P. M., 3-Ph., 60-Cy., 2200-V., Veri. G. E. Motor.
4-75 H. P., 600-720-900, 3-Ph., 220-V., Type H. F. Westge. Motors.
12-220-V., 60-Cy., 3-Ph. Westge. Motors, 3 to 50 H. P.
1-1000 H. P., 300 Rev., 3-Ph., 25-Cy., 2080-V. G. E. Type "I" Motor.
2-150 H. P., 2-125 H. P., 150 lbs., H. R. T. Boilers.

ROSS POWER EQUIPMENT CO.
Indianapolis, Indiana

A. C. Generator For Sale

1-225 K. W., 60-cycle, 3-phase, 440-volt A. C. Generator; speed, 600 R. P. M.; complete with exciter, switchboard panels and instruments. Absolutely as good as new. Immediate delivery.

Pfannmueller Engineering Co.
1733 First National Bank Bldg. Chicago

1-50 H. P. Milwaukee, 525 R. P. M., 125-volt, D. C. Motor.

1-75 K. W. Westinghouse, 500 R. P. M., 125-volt, D. C. Generator.

NATHAN KLEIN & COMPANY
Howard and Centre Sts. New York City

4 New Retorts 60" x 14' Shell

Fire-brick lined, oil fuel equipment, completely piped and now erected in a new building. Bargain.

JAS. G. LACEY, Hartford, Conn.

STOCK SHIPMENT OF

150 K. W. New Westinghouse 3-bearing Synchronous Motor-Generator Set, consisting of
1-225 H. P., 900 R. P. M., 3-Phase, 60 Cycles, 2200 Volts Synchronous Motor, mounted on common bedplate, with
1-150 K. W., 900 R. P. M., 250/275 Volts, Direct Current, Compound Wound, Commutating Pole Generator, complete with starting equipment.

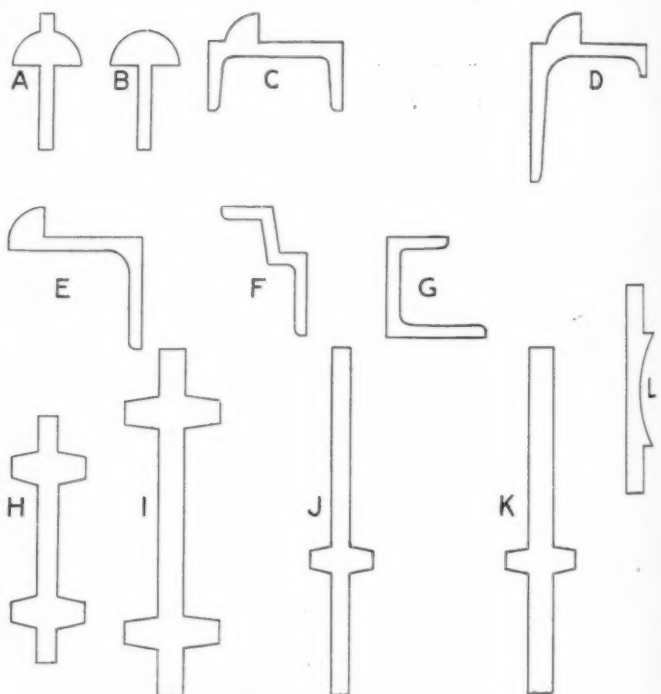
ALSO,

75 K. W. New Westinghouse 3-bearing Motor-Generator Set, consisting of
1-112 H. P., 1200 R. P. M., 3-Phase, 60 Cycles, 440 Volts, Type CS Induction Motor, mounted on common bedplate, with
1-75 K. W., 1200 R. P. M., 250 Volts, Direct Current, Compound Wound, Commutating Pole, Type SK Generator, complete with starting equipment.

The above, together with various other Motor-Generator Sets, as well as a complete line of Motors and Generators, now on our floors, ready for prompt shipment. SEND US YOUR INQUIRIES.

THE FUERST-FRIEDMAN COMPANY,
1251 WEST THIRD STREET, CLEVELAND, OHIO

Steel Sash Moulding for Sale



Drawing about 3/8" to 1-inch scale.

Shape	Size	Weight
A	1 1/2" x 3/8"	x30' 0", about 45 tons.
B	1 1/2" x 3/8"	x30' 0", about 10 tons.
C	1 1/2" x 3/8"	x30' 0", about 25 tons.
D	1 1/2" x 3/8"	x30' 0", about 20 tons.
E	1 1/2" x 3/8"	x30' 0", about 35 tons.
F	1 1/2" x 3/8"	x30' 0", about 35 tons.
G	1 1/2" x 3/8"	x30' 0", about 7 tons.
H	2 1/2" x 3/8"	x30' 0", about 25 tons.
I	3 1/2" x 3/8"	x30' 0", about 30 tons.
J	3 1/2" x 3/8"	x30' 0", about 25 tons.
K	3 1/2" x 3/8"	x30' 0", about 25 tons.
L	2 3/4" x 3/8"	x30' 0", about 5 tons.

ALL MATERIAL BRAND NEW

AMIRON SUPPLY COMPANY, Inc.
Third and Lincoln Avenues BRONX, N. Y.

First-Class Used Machinery

For Every Conceivable Kind of

WORKING MACHINES
DRILLS
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HAMMERS
LATHES
MILLERS
PLANERS
SAWERS
SHAFTS
TURRENT LATHES, Etc.

CONSULT
HENRY PRENTISS & CO., Inc.
 NEW YORK, N. Y.

1-50 K. W. Stanley, 2-phase, 60-cycle, 2400-volt, 900 R. P. M., A. C. Generator.
 1-100 H. P. G. E., 3-phase, 60-cycle, form L, 400 volts, 600 R. P. M. Motor.

NATHAN KLEIN & COMPANY
 Howard and Centre Sts. New York City

BLOWER FOR SALE
 FAN AND COILS.—1 full-house, left-hand horizontal, discharge New York Blower, 10 ft. high, complete with self-contained engine; also Heating Coils, containing approximately 5000 lineal feet of 1" pipe, all in good condition and subject to immediate shipment. Price \$1800.

OHIO MALLEABLE IRON CO.
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FOR SALE

No. 30 Hand Cylinder Grinder.
 No. 30 Hand Ring Grinder.
 All Jigs and Fixtures for making Rings and Pistons.
P. J. Hentschel Machine Co
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FOR SALE

1-Carver Linters.
 1-10-inch Carver Automatic Grinder.
MACHINERY & SUPPLY CO.
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EDGER FOR SALE

No. 1 1/2 A. L. H. Whelan Second-hand Edger Perfect Condition.
DILLON SUPPLY COMPANY
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FOR SALE

FERTILIZER MACHINERY
 1-Ton Reliable Fertilizer Mixer (new).
 1-Newark Automatic Fertilizer Scale.
 1-10" Belt Conveyor, 148'.
 All A1 condition.
JOHN M. GREENE
 261 Drexel Bldg. Philadelphia, Pa.

FOR SALE

1-No. 5 Williams Chip and Bark Shredder, 15 to 24 tons per hour, used about 60 days, good condition.
 1-4" Positive-Pressure Blower System, consisting of:
 1-No. 8 positive-pressure blower.
 1-No. 42 charger.
 1-10"x10" 35 H. P. stationary steam engine.
 140 feet 8", 20-gauge galvanized blower pipe.
 2-positive switches.
 1-adjustable elbows.
 1-flexible coupling.
 This system in use about 60 days—all good condition.
 1-Six-section Screen for chips; four sections have 1/2" round perforations, two sections have 2" round perforations, 6" diameter by 30 feet long.
 1-Link-Belt Bucket Elevator, 30 feet from center to center.
 1-12 H. P. Vertical, Single-Cylinder Fairbanks-Morse Gasoline Engine, used about 60 days, in good shape.
 1-6" Fairbanks-Morse Centrifugal Pump, 1060 gallons capacity per minute, used about 60 days, good condition.
 1-4-foot, left-hand, type A Allis Band Mill.
 1-4"x9" No. 94 Berlin Match.
 1-4"x9" No. 94 Berlin Match.
 1-15 H. P. Westinghouse A. C. Motor, with starter.
 1-40 H. P. Allis-Chalmers A. C. Motors, with starters.
 1-17 K. W. Westinghouse D. C. Generator.
 1-40 Amp., 14-Point Charging Rheostats.
 1-3-Circuit, 60-Amp. Charging Panel, 16"x24", equipped.
 1-100-Amp. Hour Meters.
 1-2000-lb. General Vehicle Electric Tractors, lumber type.
 1-50-Volt D. C. Generator; needs rewinding of armature.
 For further description, write

INDUSTRIAL LUMBER COMPANY
 ELIZABETH, LA.

STEEL STORAGE TANKS

FOR PROMPT SHIPMENT

Subject prior sale

16-4200 gals., 8' 8"x9' 6", 3/16" shell, 3/16" hds.
 5-8000 gals., 7'x25', 3/16" shell, 1/4" hds.
 6-10,000 gals., 8'x25', 1/4" shell, 1/4" hds.
 4-12,000 gals., 8'x32', 1/4" shell, 1/4" hds.
 4-15,000 gals., 9'x32', 1/4" shell, 5/16" hds.
 3-20,000 gals., 10'x32', 1/4" shell, 5/16" hds.

For shipment within six to eight weeks

10-3000 gals., 10'x15', 1/4" shell, 5/16" hds.
 7-10,000 gals., 7'x40', 3/16" shell, 1/4" hds.
 Send us your inquiries for small, medium and large size Tanks, also Stacks, Steel Barrels, etc. We can quote you.

STANDARD TANK CO.
 15 Park Row New York, N. Y.

STEEL TANKS

1-54" diam. x 19'0".
 1-36" diam. x 30'0".
 1-36" diam. x 25'6".
 1-60" diam. x 30'0".

HENRY POTTS & COMPANY
 650 Real Estate Trust Building PHILA.

For Sale**Marine Equipment**

One 225 H. P. seagoing tug.
 One 1500-ton steel barge.
 One floating clam-shell or orange-peel digger with Lambert equipment; immediate delivery.

Address

MARINE
 care Manufacturers Record
 Baltimore, Md.

For Sale**Hoisting Engine**

Stationary 8 1/2x10 double-cylinder double-drum Hoisting Engine, with independent swinger; engine 4x6, with 40 H. P. boiler, stiff-leg derrick, 1 1/2-yd. clam-shell bucket, complete; immediate delivery; practically new.

Address

CYLINDER
 care Manufacturers Record
 Baltimore, Md.

SCRAP IRON & STEEL

Avoid trouble by selling to an old-established, reputable concern.

We will pay the maximum prices allowed by the Government on nearly all grades, resting satisfied with the commission the Government allows the consumers to pay brokers as our profit.

A. M. WOOD & CO., Inc.
 305 Commercial Trust Building, Philadelphia, Pa.

1-10x10 Rand Imperial, type No. 11, 400 feet, Belted Air Compressor.
 1-Chicago Pneumatic Portable Gasoline-driven Air Compressor, 196 cu. ft., type HF-G.
 1-8" Lawrence Direct-current Pump, direct connected to a 25 H. P., 220-volt G. E. motor, direct current.
 2-Brown Hoisting Machinery Company 2-yd. Clam-Shell, Single-Line Buckets.
 1-1200' Closed Feed-Water Heater.
 6-150 H. P. H-T Butt-Strapped Rollers.
 2-250 H. P. Mosher Water-Tube Boilers, 160 lbs. pressure.

Consolidated Machinery & Wrecking Company

50 Church Street New York City

IRON AND STEEL PULLEYS FOR SALE

Lot of slightly used iron and steel pulleys—all sizes.

Foltz Mfg. & Supply Co.
 Hagerstown, Md.

HARRIS BROTHERS COMPANY, CHICAGO
Offer From Stock**Rails**

1800 tons 70-lb.
 250 tons 85-lb.
 150 tons 40-lb.
 Complete with angle bars and spikes for immediate delivery.
 6 miles 30" gauge Portable Track, with steel ties, 20 and 25-lb.

Steam Hammers

Bement Miles 800-lb. Single-Frame Steam Hammer.
 400-800-lb. Board Drop Hammers.
 1-400-lb. Mines & Peck Board Drop Hammer.
 1-800-lb. Merrill Board Drop Hammer.
 2-100-lb. Rope Lift Drop Hammers.
 1-100-lb. Little Giant Upright Trip Hammer.
 1-Boss Novelty 75-lb. Upright Trip Hammer.
 1-30-lb. Rochester Long Wooden Helde Trip Hammer.
 1-30-lb. Bradley Short Wooden Helde Trip Hammer.

Surface Condensers

1-1400' Wheeler.
 3-600' Worthington.
 2-500' Worthington.
 1-1500' Baragwanath.
 1-1300' Baragwanath.

Rotary Shears

Lennox Rotary Bevel Shear, Inclined Cutters; cuts 1/2" plate.
 Kling Rotary Shear, 16" throat; cuts 1/2" plate.
 Lennox Rotary Plate Splitting Shear; will shear to center of 16"; will shear rounds and flats 1/2".

Air Compressors

2-18x29x18x24 Laidlaw-Dun & Gordon.
 1-14x22x14 Chicago Pneumatic Tool Co.
 50-9 1/2x9 1/2x10 Westinghouse air-cooled Locomotive Compressors.
 2-1200' Ingersoll, Imperial type, low duty, 22x14x16.

Water Pipe

50,000 feet 1 1/2".
 35,000 feet 1 1/4".
 65,000 feet 2".
 48,000 feet 2 1/2".
 8,000 feet 3".
 15,000 feet 4".
 13,000 feet 1 1/2" double extra strong Seamless Steel Tubing; good for 5000 lbs. pressure, fitted with Briggs threads each end and couplings.

Nut and Tapping Machines

6-Spindle 1 1/2" Vertical Nut Tapping Machine (Acme type).
 1-4" Hand Power Roll, capacity 10-gauge material.

Locomotive Cranes

1-20-ton O. & S., 8-wheel, 42 1/2' boom.
 1-30-ton, 8-wheel Industrial Locomotive Crane, 32' goose-neck boom.
 1-40-ton Bucyrus, 8-wheel, 55' boom.
 1-2-ton, 4-wheel railway type, 110-volt storage battery Electric Locomotive Crane; boom 15', full revolving, with motors and controllers.

Overhead Traveling Cranes

1-7 1/2-ton Northern, 4-motor Electric Traveling Crane; fish-belly type, 75' span.
 1-4-ton, two-motor Electric Crane, 20' span, 220-volt.
 2-75' Steel Plate Girders, equipped complete with 20-ton-capacity hand-power trolley.
 1-25-ton hand-power Traveling Crane.

Dump Cars

150 Western and Oliver type, all-steel, 12-yd. Dump Cars, which we offer for sale or lease. These cars are located at various points in the East.

Punches and Shears

1-Heavy-duty Gate Shear, with 21" blade, 11" throat, capacity cutting up to 1 1/2" plates, spur gear 42" diameter by 10" face.
 1-Bement-Niles Combined Punch and Shear, 22" depth of throat both sides, punches 1 1/2" through 1", shears 6x1" flats.
 Single End Shear, 22" throat; will punch 1 1/2" through 1".
 Single End Punch, 27" throat, punch 1/2" through 1/4".

Rolling Mill Stand

1-New Rolling Mill Stand for finishing ends 72" plate mill, two rolls high, 24" diameter by 72"; arranged for direct connection.
 1-16" Rolling Mill, three rolls high, two-stand, direct connected to a steam engine.

Hoisting Engines

1-7x10 double-cylinder, single-drum Mundy Hoisting Engine, skeleton type.
 3-4 1/2x6 double-cylinder, single-drum Stroudsburg Hoisting Engine.
 1-8 1/2x10 double-cylinder, double-drum Flory Hoisting Engine, skeleton type.
 1-9x10 double-cylinder, double-drum Russell Wheel & Foundry Co. Engine.
 1-Double-cylinder, double-drum Flory Hoisting Engine, skeleton type, cylinders 8 1/2x12.
 1-7x10 double-drum, double-cylinder Mundy.

20" Pipe

15 miles of 20" spiral riveted A. & R. Pipe, with flanged compression connections. This pipe is made of No. 8 gauge; is in A-1 condition. Delivery can be made immediately.

Marion Steam Shovels

1-No. 14 Railway type, 1/4-yard Marion Steam Shovel, 1/4" revolving independent crowding engine, slewing and hoisting engines. This rig, located at North Carolina, is in good condition. Can be shipped at once.

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150-20" gauge 1-yd. cap. V-shaped and one-side Dump Cars.
 75-Flat-top, 20" gauge Industrial All-Steel Cars.
 118-24" gauge K. & G. Box Cars, 30 cubic feet capacity.
 67-24" gauge Atlas Flat Cars.

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2-20" gauge Steam Locomotives.
 1-24-ton Shay geared standard-gauge Locomotive.
 1-50-ton 4-wheel standard-gauge Locomotive.
 1-60-ton American & Baldwin.
 1-65-ton American & Baldwin.
 1-6-wheel American Locomotive, 61 and 63-ton, 180 lbs. pressure.

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Several thousand feet of Steel Wire Cable, ranging in sizes from 1/2" to 2". Send us a memorandum of your requirements.

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2-Wicks Bros. Vertical Boilers, pressure type, quadruple riveted, butt strapped, equipped with Murphy stokers and all breechings connections. These boilers are located at Detroit, Michigan, and shipment can be made at once. Hartford inspection, 151 lbs. pressure.

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20-10,000-gallon Storage Tanks.
 4-5,000-gallon Storage Tanks.
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 2-3,000-gallon Storage Tanks.
 1-5'x24" Pressure Tank.
 2-60"x18" Pressure Tanks.
 1-54"x12" Pressure Tank.
 25-16"x46" Pressure Tanks.
 1-30" diameter, 125' high, Water Tower Tank, made of plates 1/2", 3/4" and 1", reinforced, including ladder.

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1-Steel Building, 76' clear span, any length up to 600' long. Columns 30' to bottom chord.
 1-Steel Roof complete, 80' clear span, 340' long, consisting of 17 80' hip trusses, purlins, wind bracing, etc.
 1-Steel Frame Building, 80'x140', consisting of columns, trusses, purlins, window framing, bracing, etc.
 1-Flat-Roof Steel Frame Building, 80' clear span, 160' long, 40' columns, all complete.
 1-Steel Building, L-shaped, 450x50 ft. x 162x150 ft.; 16-ton electric crane, center bay; 6-ton electric crane, L. bay; two 2-ton cranes, mono-rails, hoists, etc.
 1-Lot, consisting of 40 76' clear span Flat Roof Trusses.

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1-48-in. H. B. Smith Endless-Bed Sander.
1-24-in. 2-Drum Egan Sander.
1-24-in. 1-Drum Boss Sander.
1-30x 6 Fay 6-Roll Double Surfer.
1-28x 8 Woods 6-Roll Double Surfer.
1-28x 8 Rogers 6-Roll Double Surfer.
1-30x12 999 6-Roll Double Surfer.
1-30x 6 Egan Cabinet Planers.
1-27x 7 Smith Cabinet Planer.

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100-horse-power Fairbanks-Morse Gas Engine, multi-cylinder type, with gas-producer outfit for coal.

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Dry Grinder for two 12" wheels.

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350 ft. Second Hand Steel Bar Drag Chain Perfect Condition.

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500 ft. of 12" Screw Conveyors.

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Also 25 Assorted Tanks.

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Used Machinery

Logging, Railroad, Sawmill, Planing Mill, Cableway, Power Plant, Yard, Fire Protection Engineering and Barn Machinery and other items, including following and many other items:

BOILERS—Battery of four 100 H. P. Boilers with stack.

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One No. 8 Gates Gyratory; complete, fine shape.

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One 11"x22" Acme Jaw Crusher; fine shape.

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One 9"x16" Indiana Jaw Crusher on wheels.

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One with power dump and one with standard platform body, made by the White Company, Cleveland, O.

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750-ft. x 2-in. 6/19 Plow Steel, Anchor Weights and Carriages.

576-ft. x 2-in. Flatwire, C. C. Steel, Anchor Weights.

30-ton Steel Wire Rope, 3/4 in. to 3/4 in.

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2000 Steel and Wood Blocks, 6 in. to 3 in.

10 Steel Blocks, New, 18-in. for 1-in. Wire Rope.

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2 Ton Mauls, 8 to 30-lb.

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Special yard turnouts for all sections of rail.

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Everything "Made in U. S. America"

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Marion 75 Standard Gauge, 4-yard Dipper.

Marion 91 Standard Gauge, 4-yard Dipper.

Thoroughly overhauled and ready for immediate shipment.

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13 Western Wheeled Scraper 4-yard two-way Dump Cars, fair condition.

1-9x14 Baldwin Locomotive, 86" gauge, 150 lbs. steam pressure.

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\$2500 f.o.b. cars Portland, Maine.

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- 1-Marion 91 standard gauge 4-yard dipper.
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- 1-Marion 70 standard gauge 2½-yard dipper.
- 1-Bucyrus 70-C standard gauge 2½-yard dipper.

DITCHERS

- 2-Keystone Excavators.

LOCOMOTIVES

- 2-15-ton 9x14 36-in. gauge Dinkeys.
- 6-18-ton 10x16 Dinkeys, 36-in. gauge.
- 1-Fate Gasoline Locomotive, 3-ton, 36-in. gauge.

CARS

- 140-4-yard Western Cars, 36-in. gauge, steel and wood beam.
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HOISTS, DERRICKS, BOILERS, CONCRETE MIXERS, Etc.

We have a large stock of thoroughly repaired construction equipment of all kinds ready for immediate shipment.

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- 5-Vulcan 4-wheel 12"x16" Saddle Tanks, weighing 25 tons.
- 2-American 4-wheel 14"x24" Saddle Tanks, weighing 35 tons.
- 1-American 4-wheel 17"x24" Slope Tender, weighing 40 tons.
- 1-Baldwin 4-wheel 18"x24" Slope Tender, weighing 50 tons.
- 1-American 6-wheel 17"x24" Slope Tender, weighing 45 tons.
- 1-Baldwin 6-wheel 17"x24" Slope Tender, weighing 50 tons.
- 2-American Moguls, 18"x24", Square Tender, weighing 55 tons.
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- 1-American Mogul, 19"x24", Square Tender, weighing 60 tons.

The above locomotives have been thoroughly overhauled.

35" GAUGE LOCOMOTIVES

- 6-Porter 4-wheel 9"x14" Saddle Tanks, contractors' type.
- 2-Vulcan 4-wheel 9"x14" Saddle Tanks, contractors' type.
- 3-Vulcan 4-wheel 10"x16" Saddle Tanks, contractors' type.
- 6-Porter 4-wheel 11"x16" Saddle Tanks, contractors' type.
- 1-Baldwin Consolidation 15"x20" Square Tender, weighing 38 tons.
- 1-American Forney, 10"x16", weighing 25 tons, 2-4 type.
- 2-Vulcan 10-wheel 14"x20" Square Tenders, weighing 35 tons.

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- 50-Flat Cars, 50,000-pound capacity, 35' long, M. C. B.
- 30-Flat Cars, 60,000-pound capacity, 36' long, M. C. B.
- 42-Gondolas, 80,000-pound capacity, 35' long, M. C. B.
- 25-Hoppers, 60,000-pound capacity, 28' long, M. C. B.
- 23-Box Cars, 60,000-pound capacity, 36' long, M. C. B.
- 2-Steel Flats, 100,000-pound capacity, 40' long, M. C. B.
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- 500-tons 45 and 50-lb. Rail.

We also have several Air Compressors, Air Pumps, Tanks, Rock Crusher, etc. Will rent a large portion of this equipment at reasonable rates.

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HOISTING ENGINES (Steam)

- 1-Flory, 10"x12", Double Cylinder, Single Drum, without boiler.
- 1-Flory, 9"x10", Double Cylinder, Double Drum, with boiler.
- 2-Lidgerwood, 8½"x10", Double Cylinder, Double Drum, with boiler.
- 2-Stroudsburg, 8½"x10", Double Cylinder, Double Drum, with boiler.
- 1-Flory, 10"x12", Double Cylinder, Double Drum, with boiler.
- 4-Lidgerwood, 7"x10", Double Cylinder, Double Drum, without boiler.
- 3-Mundy, 5½"x10", Double Cylinder, Double Drum, with boiler.
- 2-Lidgerwood, 6½"x8", Double Cylinder, Double Drum, with boiler.
- 2-Lidgerwood, 5"x8", Double Cylinder, Double Drum, with boiler.
- 1-Lidgerwood, 8½"x10", Double Cylinder, Double Drum parallel, without boiler.
- 1-Crook, 8½"x12", Double Cylinder, Double Drum, without boiler.
- 1-Mundy, 6½"x12", Double Cylinder, Double Drum, with boiler.
- 1-American H. & D., 7"x10", Double Cylinder, Double Drum, with boiler.
- 1-Flory, 7"x10", Double Cylinder, Double Drum, with boiler and swinger.

These hoists are all in fine shape, ready to go to work.

HOISTS (Electric)

- 1-3-Drum, with swinger, 150 H. P., A. C. motor.
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- 1-Double Drum, 100 H. P., D. C. motor.
- 1-Double Drum, 50 H. P., D. C. motor.
- 2-Double Drum, with swinger, 30 H. P., D. C. motor or A. C. motor.
- 9-Double Drum, with swinger, 25 H. P., D. C. and A. C. motor.
- 3-Single Drum, with swinger, 25, 37 and 5 H. P., A. C. motor.

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- 1-Steel Guy, 66' mast, 54' boom, complete with guys, etc.
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- 1-Steel Stiff Leg, 50' mast, 80' boom, complete with all fittings.
- 2-Steel Guys, 80' mast, 70' boom, complete with all fittings.

Also several Wooden Stiff-Leg and Guy Derricks and Travelers.

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- 1-150 H. P. locomotive type.
- 2-65 H. P. locomotive type.
- 2-40 H. P. locomotive type.
- 10-165 H. P. vertical type.

THESE WE OWN AND CAN GUARANTEE AND SHIP PROMPTLY

COMPRESSORS

- 1-12x12x16 Ingersoll, straight-line, steam-driven, capacity about 300' at 80 to 100 lbs. \$ 000
- 1-Sullivan, 2-stage air, simple-steam, capacity 1800' at 80 to 100 lbs. 2500
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- 1-Ingersoll-Rand Imperial Type XB2, 500' 2000
- 1-Sullivan, 2-stage, belt-driven, 1400', good as new, f. o. b. St. Louis. 4500

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- 30-4-yd. Western, 2-way, contractors' 36"-gauge, wooden bodies, each. \$ 125
- 30-2½-yd. steel-bodied, end-dump Quarry Cars, 48"-gauge, each. 75
- 70-2½-yd. steel-bodied, end-dump Quarry Cars, 36"-gauge, each. 80
- 20-12-yd. Western, standard-gauge MCB, air-dump Cars, almost new, each. 1050
- 20-12-yd. Western, standing-gauge, MCB, air-dump Cars, good condition, each. 900
- 50-1½-yd. Koppel "V"-shaped, 24"-gauge. Steel Cars, new, each. 120

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- 2-No. 5 Austins, one straight and one angle drive, both fine condition, each. 1500
- 1-No. 6, Style "D," Gates, fine condition each. 1500
- 1-No. 7½ Austin, almost new. 2800
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- 1-10x18 Good Roads Machinery Jaw Crusher, on wheels, with 22' elevator. 800
- 1-9x16 Universal on skids, almost new. 500
- 2-18x24 Blake Jaw Crushers, very heavy type. 2000

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- 1-No. 5 Gates, 70' centers, almost new. \$ 700
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- 1-Stephens & Adamson Stone Screen, 42"x16" with dust jacket, practically new. 700
- 1-48"x18" Austin Screen, with dust jacket. 800
- 1-48"x20" McCully Screen, with dust jacket. 900

CLAM SHELL BUCKETS

- 1-¾-yd. Owen, with teeth, almost new. \$ 450
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- 1-1-yd. Browning. 500
- 1-1½-yd. Page Dragline. 500
- 1-2-yd. Brown Hoist Clam. 750

CRANES

- 1-5-ton, 4-wheel Vulcan Bucyrus, single-line crane. \$6000
- 1-10-ton Browning, 4-wheeled, with bucket. 9000
- 1-15-20-ton McMyler, 4-wheeled, with stability wheels on ends of axles, good as new. 13,000
- 1-25-ton Industrial 8-wheeled, 50' boom, 1½-yd. Clam Shell; perfect condition. 24,000

HOISTING ENGINES

- 1-7x10 Lidgerwood D.C., D.D., with boiler. \$1100
- 1-7x10 Lambert, 3-drum, with boiler. 1600
- 1-8x12 Mundy, D.C.; D.D., with boiler. 1300
- 1-9x10 Lidgerwood, 3-drum, 32" drums, without boiler. 2000
- with boiler. 2300
- 1-Clyde 9x10, 3-drum, with boiler, f. o. b. Mich. 2500
- 1-5x8 D.C., D.D., Reversible O.S., with vertical engine, without boiler. 350
- with boiler. 550
- 1-7x10 Lambert D.C., D.D., with boiler. 1100
- 1-12x14 D.C., D.D., Slackline Cableway Engine, new. 2000
- 1-8½x10 Lidgerwood D.C., D.D., with boiler. 1600

LOCOMOTIVES

- 1-9x14 Vulcan, 36"-gauge, saddle tank. \$1250
- 1-9x14 Vulcan, 36"-gauge, saddle tank. 1350
- 1-19x24 Baldwin, 10-wheeler, 60 tons. 8000
- 1-18x24 American, 10-wheeler. 6500
- 1-17x24, 6-wheel switcher. 7500
- 1-18x24 Mogul, 45-ton. 10,000

DRAGLINES

- 1-Monaghan-Walker Steam Machine, with 50'-boom, 1½-yd. bucket, almost new. \$7000
- 1-Flory Outfit Engine, 10x12 heavy drag-line type boiler, firebox 150 lb. pres-

- sure, boom 60', steel bucket, 2-yd.; new, 1917. \$9000
- 1-24 Bucyrus, with 85' boom.

RAIL

- 400 Tons-35-lb., with angle bars. \$57
- 1500 Tons-56-lb., with angle bars. 58
- 100 Tons-75-lb., with angle bars. 55

PUMPS

- 1-10" Morris, sand, belt-drive. \$ 500
- 1-8" Morris, water, belt-drive. 300
- 1-20x14x10 Worthington Duplex. 600
- 1-Wilson-Snyder Water-Works Pump, complete with condenser. 2500

STEAM SHOVELS

- 1-No. 0 Thew traction with ¾-yd. dipper, fine condition. \$4000
- 1-No. 1 Vulcan Revolving Shovel, standard gauge, with ¾-yd. dipper, good as new. 4500
- Same as above, with 35'-crane boom. 5500
- 1-45-ton Bucyrus, standard gauge, 1¾-yd. dipper. 6500
- 1-Model 60 Marion, with 2½-yd. dipper. 7000
- 1-70-ton Bucyrus, with 2½-yd. dipper. 6000

CABLEWAYS

- 1-9x10 Lidgerwood, 3 drum engine and boiler and carriage and part of other fittings, no rope. \$3000
- 1-50-H.P. Flory D.D. Electric, with carriage and fittings, but no rope. 3000
- 1-7x10 Flory Steam, D.C., D.D., with boiler, carriage and all fittings, but no rope. 1950

BOILERS

- 1-25 H.P. Vertical American Hoist and Derrick. \$ 250
- 1-40 H.P. Firebox, on steel truck. 550
- 1-50 H.P. Vertical Butt Strap. 750
- 1-60 H.P. Vertical Lidgerwood. 800
- 1-200 H.P. Erie Water Tube, Hartford Insurance, at 150-lb. pressure. 2500
- 2-200 H.P. Marine Boilers, good for 150-lb. pressure, complete. Price, \$12.00 per H.P.

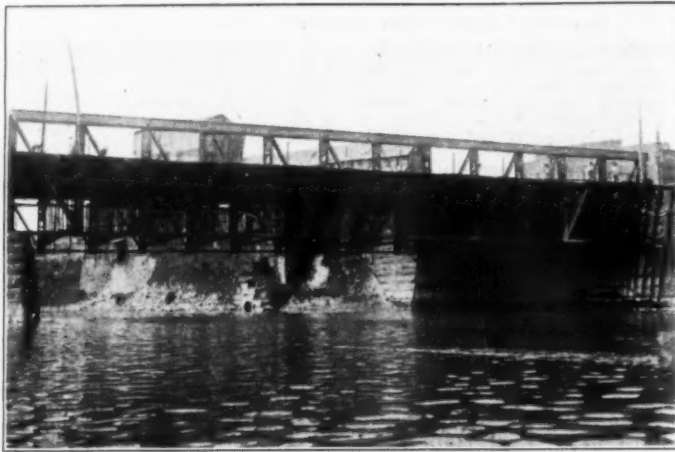
ENGINES

- 1-11x16 Erie Slide Valve, good as new. \$ 300
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HIGHWAY BRIDGE FOR SALE

For Immediate Delivery

We have for sale for delivery at once one span of the West Broad Street Bridge over the Scioto River at Columbus, Ohio. This bridge is designed for heavy Street traffic and is in fine condition. The length of span is 165 ft. on centers, the roadway 60 ft. clear, one 12 ft. cantilevered sidewalk with ornamental hand rail. The roadway may be reduced to any desired width by shortening floor trusses or substituting beams. There are 21 lines of steel I beams, including 4 12" beams for supporting street car rails.

This bridge is heavy enough for any Street Railway, Electric Railway or light Steam Railway traffic.

Full information, accompanied by detailed drawings and photographs, will be furnished upon application accompanied by check for \$3, which will be held for return of plans.

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Carmichael-Cryder Company

700 Rialto Building, ST. LOUIS, MO.

OR

185 West Broad St., COLUMBUS, OHIO

HOISTING ENGINES

- 1—Lidgerwood, 14x18, D. C., three tandem drum, suitable for cableway.
- 1—Shannon, 7½x10, D. C., D. D., with boiler.
- 1—Mundy, 6½x10, D. C., D. D., skeleton.
- 2—Mundy, 6½x10, D. C., D. D., with boilers.
- 1—National, 5½x10, D. C., D. D., with boiler.

STATIONARY ENGINE

- 1—350 H. P. Green Slide Valve Engine, equally as good as new, size 22"x48" wheels 16"x32".

BOILERS

- 3—American-built, Scotch type marine boilers, 12'6" dia. by 20' long, double end, three corrugated furnaces each end, 160 lbs steam.
- 1—350 H. P., horizontal return tubular Boiler, 125 lbs steam.

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100'x70', practically new, 6 bays, 16'8", 39' in clear.

ANCHORS

10—new mushroom Anchors, 5000 lbs. each.

PIPE

6000 ft., strictly first class 6" wrot-steel Pipe, equally as good as new.

700 ft. strictly first class 20" dia. steel-riveted flange Pipe, lengths 20' each.

400 ft., 24" dia., 30' lengths, equally as good as new.

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- 1—65-ton Bucyrus, 2½-yd. dipper, standard gauge.
- 1—No. 1 Thew Traction Steam Shovel, ¾-yd. dipper.

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- 1—Morris No. 12, 14" suction, 12" discharge, direct connected to horizontal engine, 18x10, 4500 gallons capacity per minute.
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- 34—Standard gauge car trucks, four wheel; wheels 24" diameter, in first-class second-hand condition.

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600 tons strictly first class, 30-lb. relaying rails with 4-hole angle bars. We have a large tonnage of all weight rail from 20 to 100 lb. relayers; pass any inspection.

1—Logging Engine, size 7x10, D. C., D. D., with boiler.

1—36" gauge, 28-ton Climax Locomotive, North Carolina delivery.

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Station K Philadelphia, Pa.

Type "B" Erie Shovel

TRACTION

2 Years Old

AS GOOD AS NEW

Can furnish ext a Sewer Dipper and Stick

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10-INCH SUCTION DREDGE

Operated by Oil Engines

Fairbanks Morse 100 H. P.

Fully equipped 750 feet pipe, pontoons, and necessary fittings all in good condition ready to operate; can furnish crew for immediate work.

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50' boom, 1½ yd. clam shell, 16' gauge, 9x12 engines, 60" diameter boiler, revolving, in fine condition. *Immediate Shipment.*
Price \$5,000.00.

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60 HORSEPOWER

Gasoline Hoisting Engine

8-Cylinder Gasoline Hoisting Engine, 60-horsepower, corresponding with an 8½x10 steam hoisting engine; has two drums and two winch heads. Drums are 14 inches in diameter and 27 inches long between flanges. Has two speeds. Single-line pulling capacity 8000 pounds; has Bosch magneto and a good carburetor; also gasoline tank and water-cooling tank.

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A powerful, well-built engine, on which we can give immediate shipment.

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BOX, FLATS, STOCK AND TANKS

Specifications and Prices on Application

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- 1—Keystone Well Driller.
- 2—Vulcan 9x14 Locomotives.
- 1—Standard-Gauge Flat Car.

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22 tons of good second-hand relaying rails.
500 ft. of 4" O. D. second-hand Iron Pipe.

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Lidgerwood 7x10, D. C., D. D. Hoisting Engine, with boom swinger.

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Smith No. 10 Concrete Mixer, gasoline driven, on wheels.

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100 tons 56-lb. with angles. New.
Full complement of angles for above.
In Stock—Immediate Shipment

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1-40-ton Vulcan 6-wheel switcher, 4 ft., 8 1/2-in. gage, 150-lb. steam. Good.
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1-36-ton Davenport S. T., 4 ft., 8 1/2-in. gage, 150-lb. steam. First-class.
1-14-ton Porter S. T., 36-in. gage, 140-lb. steam. Overhauled.
1-14-ton Davenport S. T., 36-in. gage, 140-lb. steam. Overhauled.
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2-3-ton Davenport S. T., 24-in. gage, 140-lb. steam. First-class.

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5-36-ft. 60,000 cap., 4 ft. 8 1/2 in. gage. Overhauled.
4-100,000 Cap. Hopper Bottom Ore Cars. Practically New.

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1-10x16 Rice right-hand, heavy duty fly-wheel 72x24 in. Approx. 100 H. P. First-class. Priced right.

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1-24x10 Stroudsburg D. C., S. D. Hoist, with boiler.
1-40 H. P. Oil, Country Type Locomotive Boiler.
1-4" Erie Centrifugal Pump, Steam Engine attached.
1-6" Morris Centrifugal Pump, Steam Engine attached.
1-Still-Leg Derricks.
1-3-yd. Mixer on Trucks, Steam Engine and Boiler.
1-10 H. P. General Electric Motor, A. C., 220-volt, 3-phase, 60-cycle.
1-Air Hammer, Westinghouse Compressor, 7 1/2 feet Hose.
1-Outer motor-driven Pipe-Threading Machine, 1" to 4".
Locomotives, Cars, Rails, Track, Crushers, Pipe, Cable, Boilers, etc.
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16,000 tons, with Angle Bars to match. Available immediate shipment and centrally located. We positively own these Rails and offer same in carload lots and over. 25,000 tons Relayers, sizes 25-lb. to 100-lb., in stock our Pittsburgh yards and vicinity. Immediate shipment guaranteed and prices very attractive. Carload and less carload inquiries and orders solicited. Rails cut to length for structural purposes. Frogs, Switches, Bolts, Nuts, Spikes and all accessories.

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2-22" Whirling Cupolas.
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90 " 67 1/2-lb. new rails.

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It will hoist 1500 pounds at the rate of 400 feet a minute.

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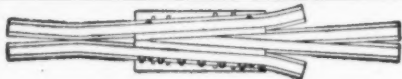
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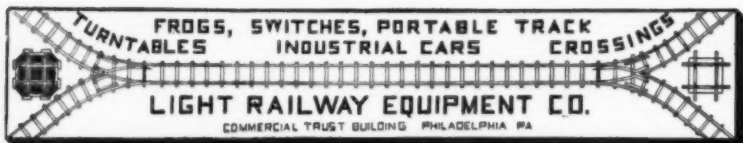


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- 1—Baldwin, 30-ton, saddle tank, standard gauge, type 0-4-0.
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- Ingersoll-Rand duplex, two-stage, steam driven, capacity 1190 ft. air at 110 lbs. pressure.

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- 2—50 K. W. General Electric, direct connected to Ball engines; complete with all apparatus, 125/250 three-wire.

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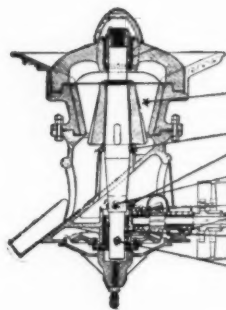
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Concrete Bars, Rounds, Squares, and Twisted Squares
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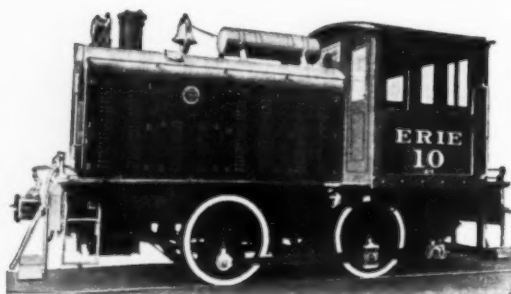
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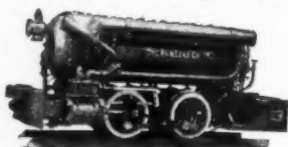
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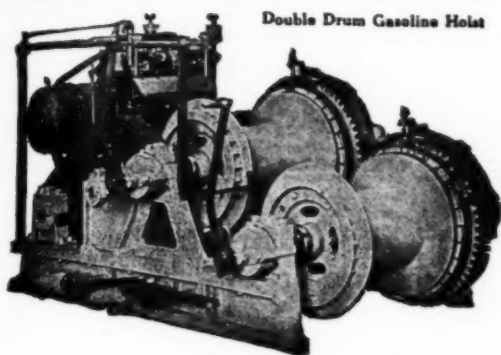
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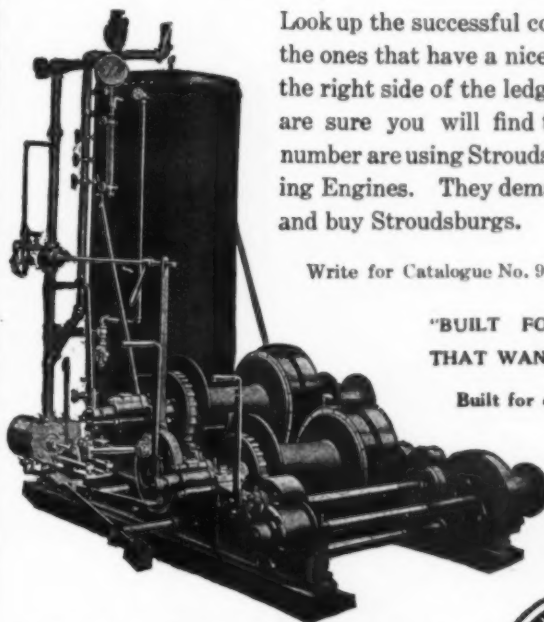
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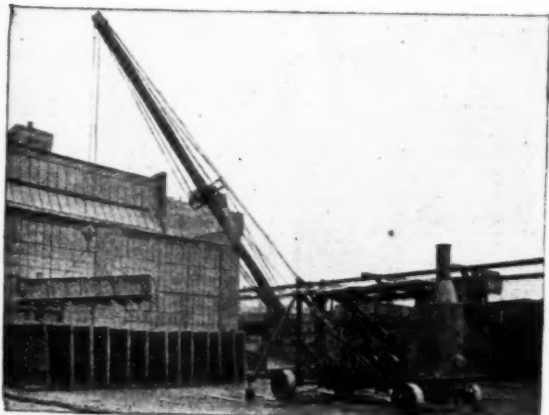
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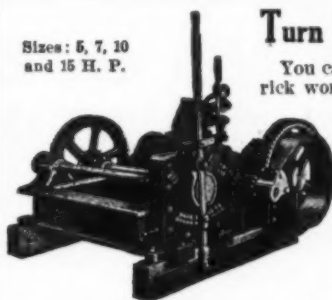
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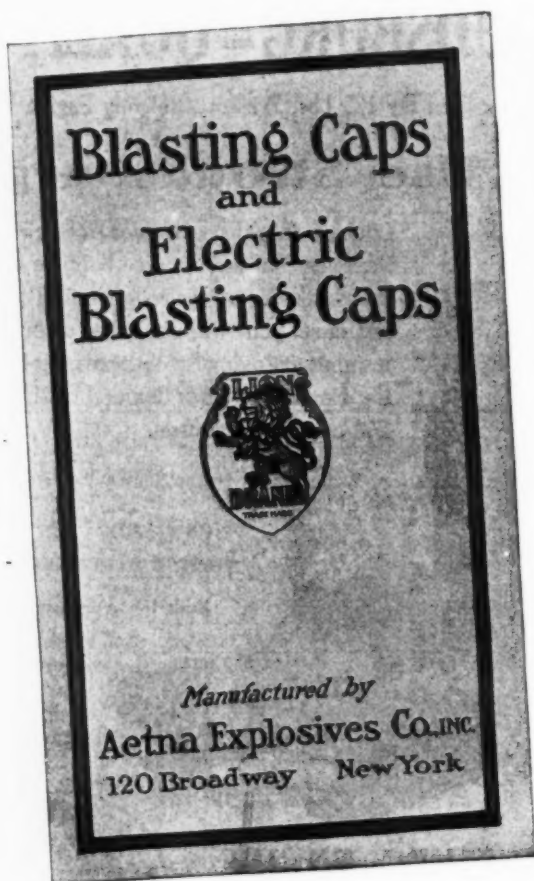


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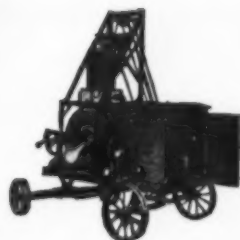
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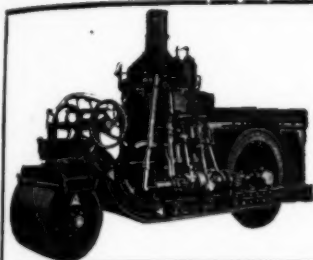
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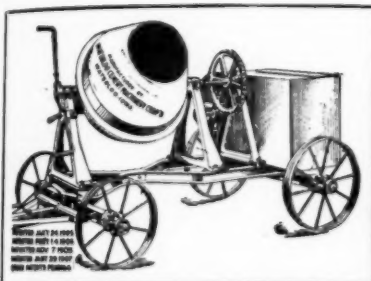
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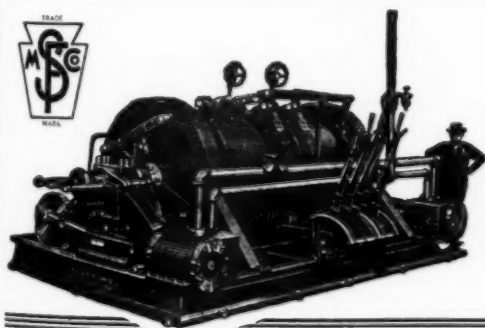
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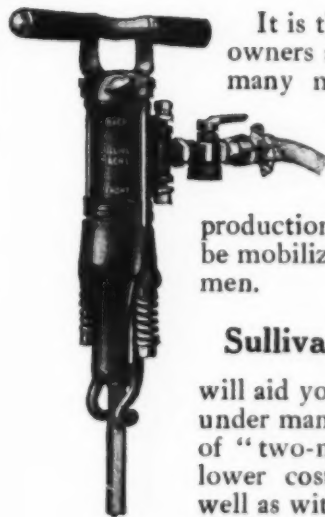
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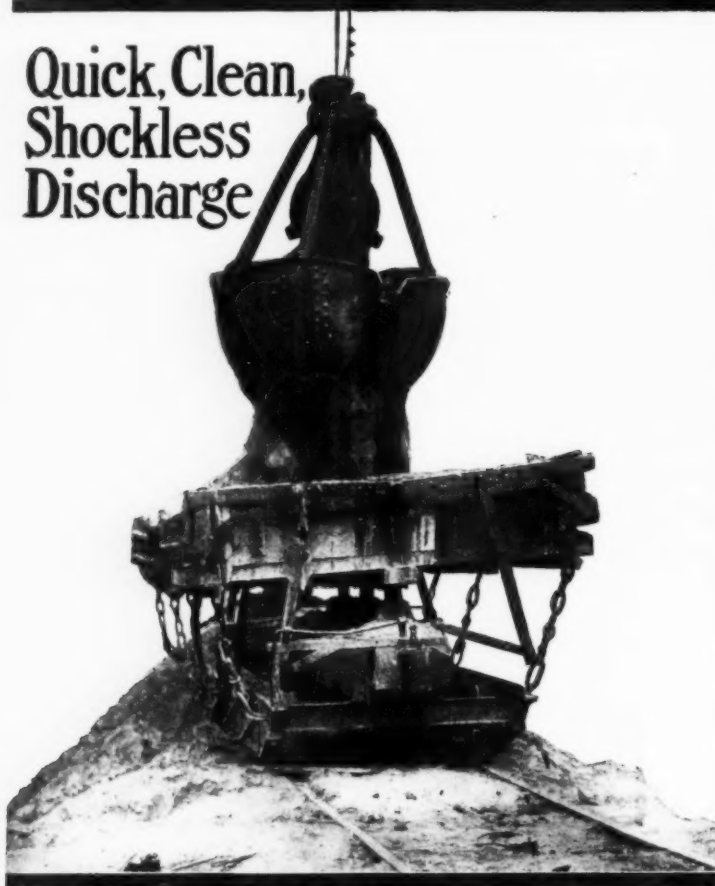
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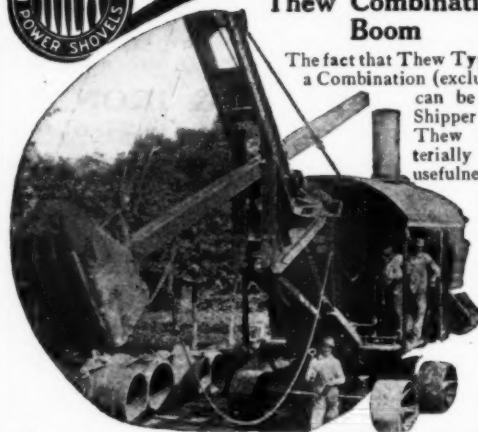
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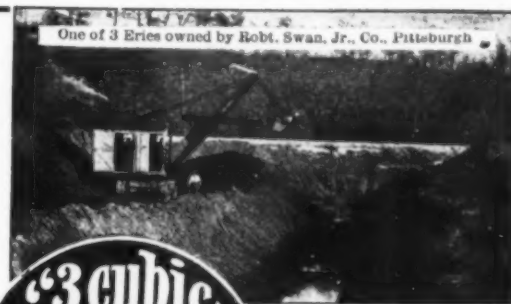
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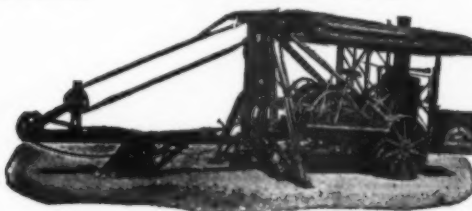


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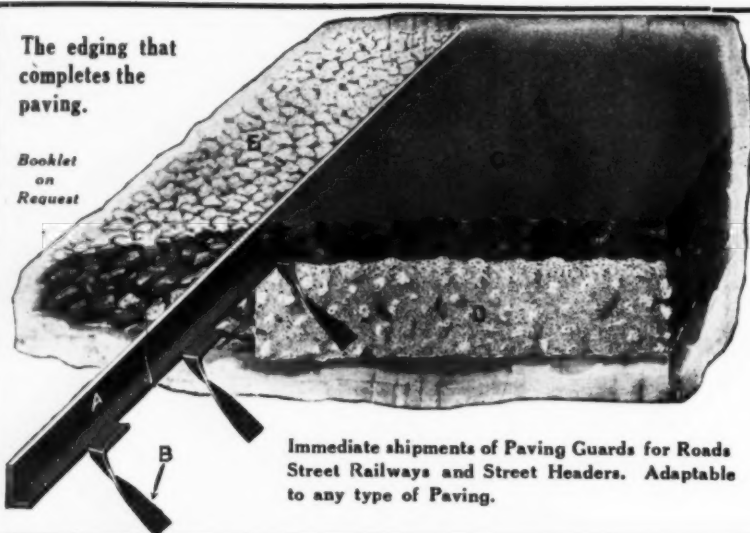
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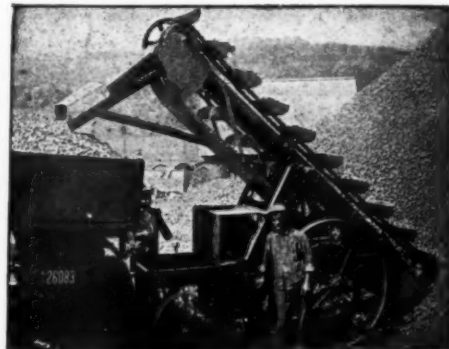
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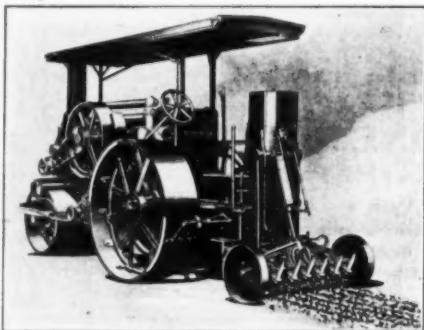
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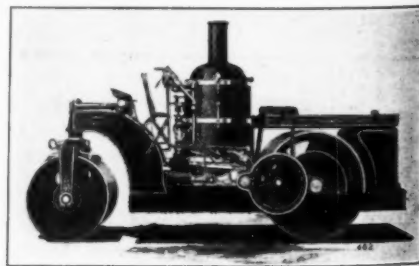
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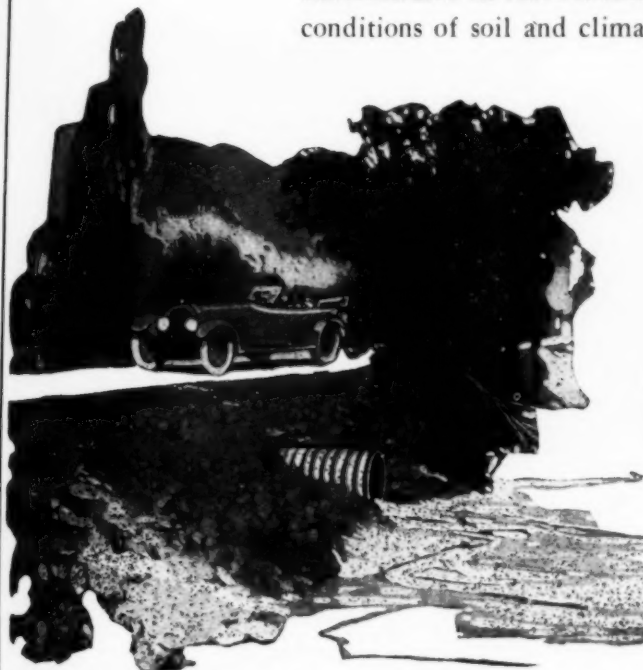
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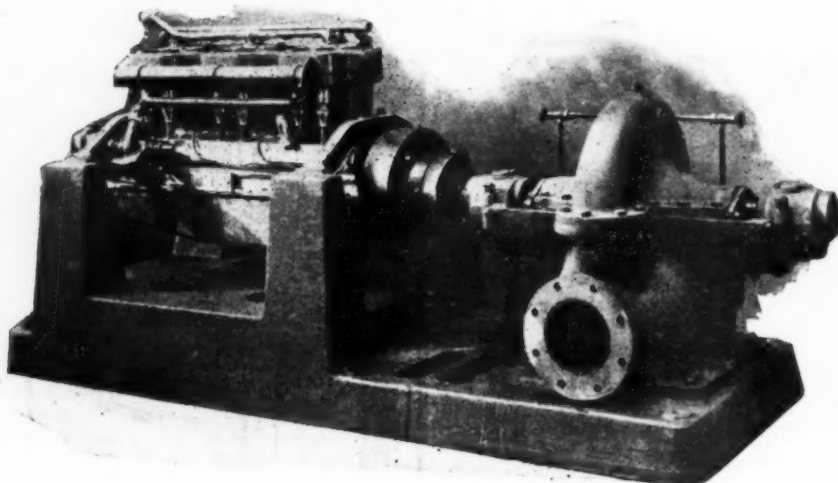
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Complete performance data for all the standard sizes of Allis-Chalmers type "S" pumps is obtained by factory tests. It is therefore an easy matter for our engineers to select a suitable pump for almost any kind of drive.

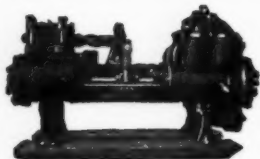
The gasoline engine-driven pump illustrated above is an example of a special drive which is practical for many emergency cases.

ALLIS-CHALMERS

Milwaukee, Wis. U.S.A

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These pumps have been handling mud, and circulating water in wells, handling heavy oil down 14 degrees B. and pumping sand and oil from producing wells.

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(The above is a facsimile of part of a letter from the Chief Engineer of a large oil company.)

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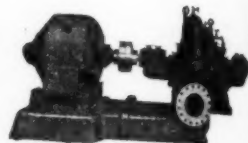
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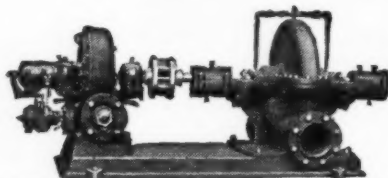
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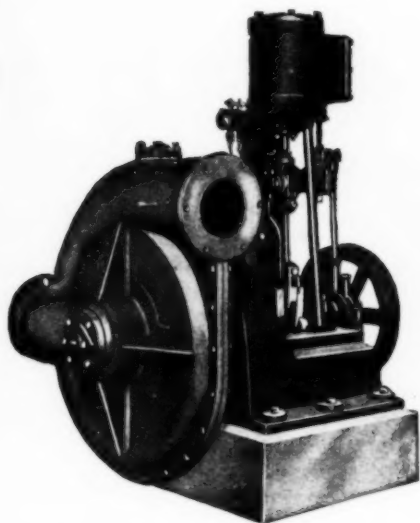


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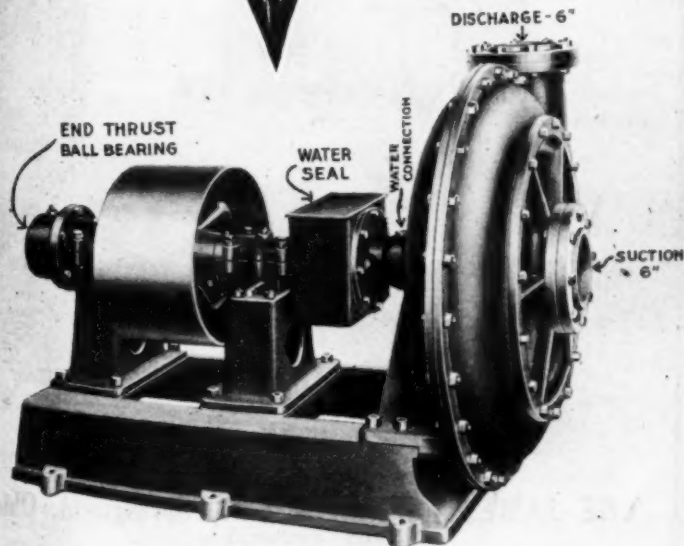
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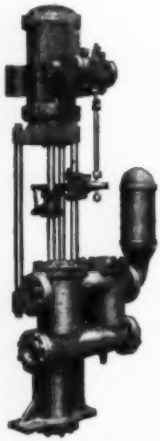
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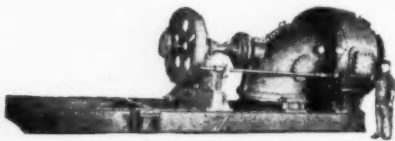
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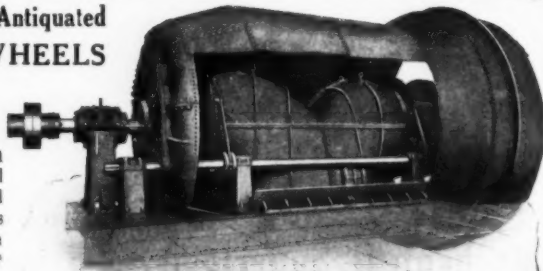
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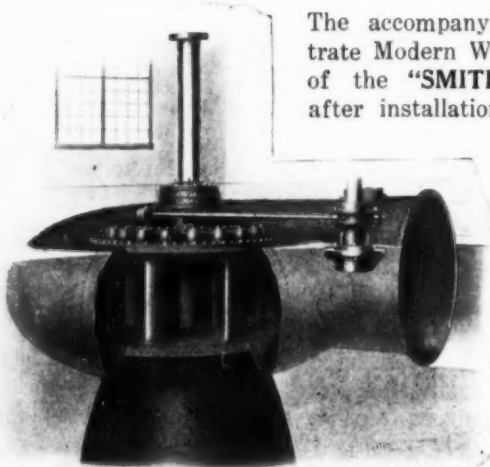
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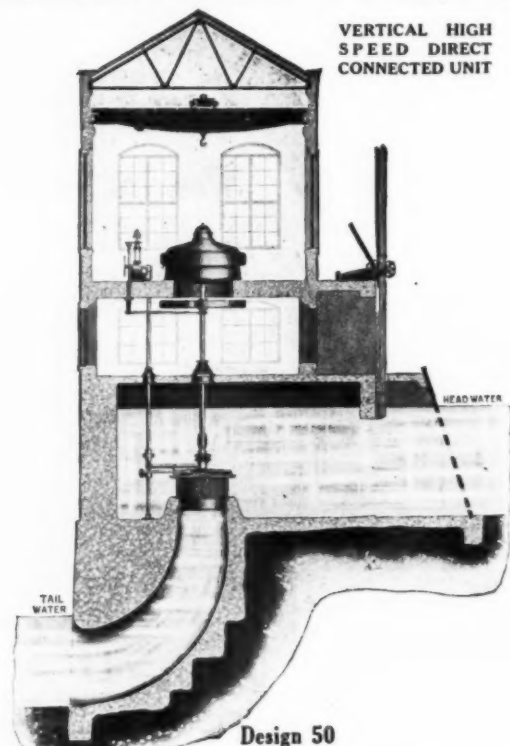
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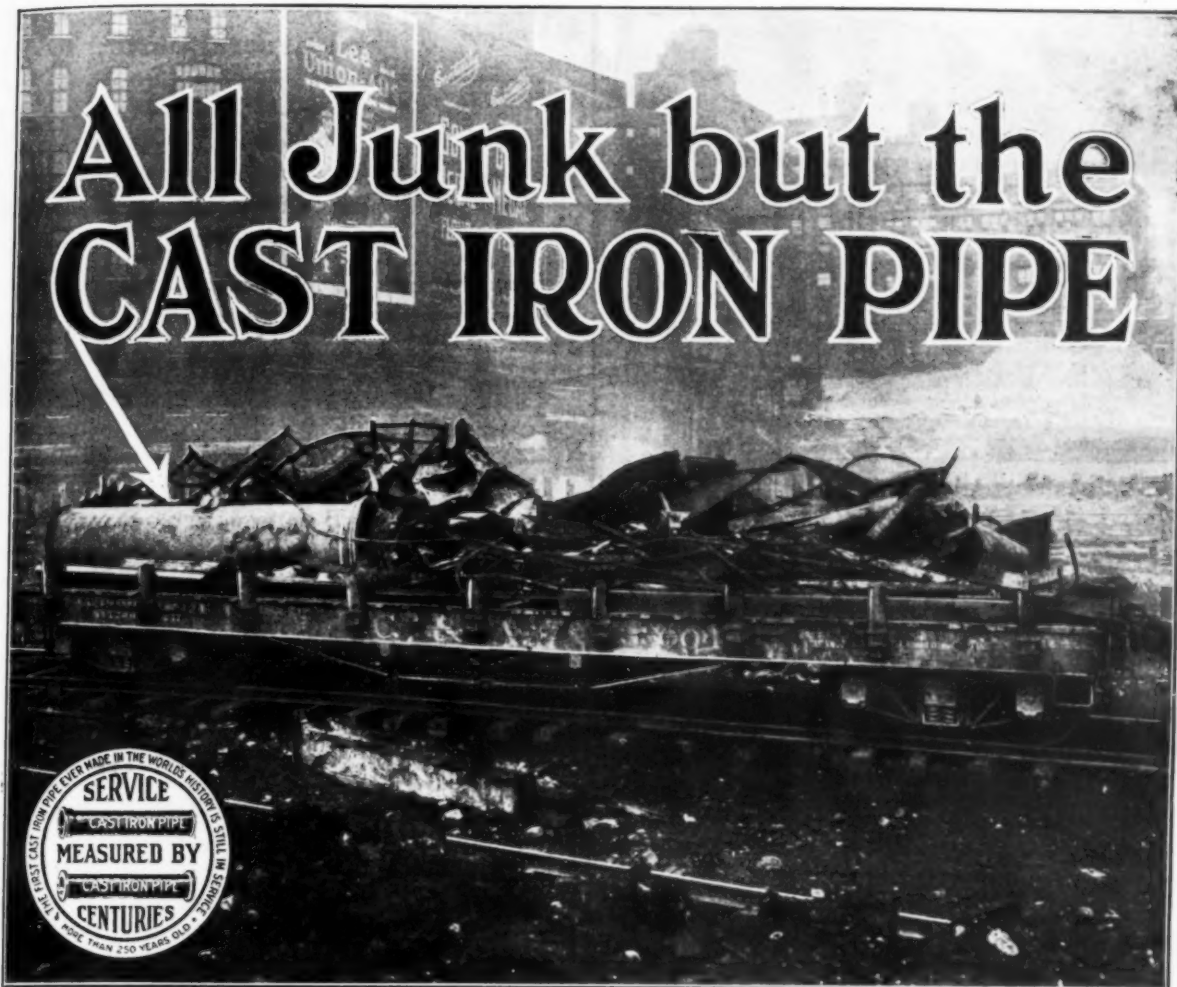
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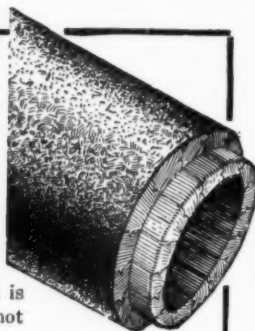
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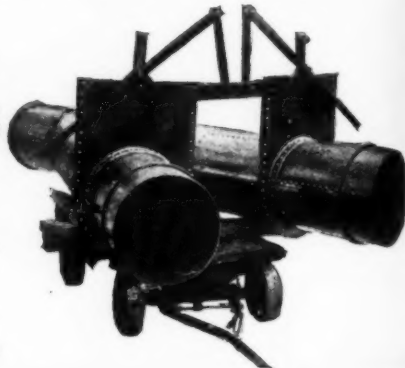
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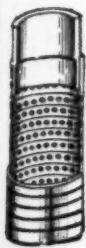
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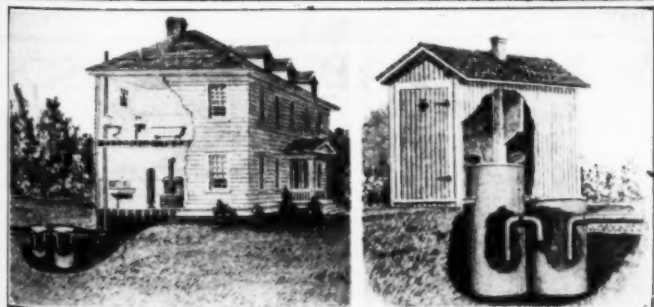
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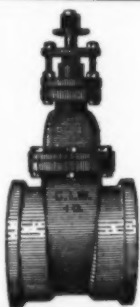
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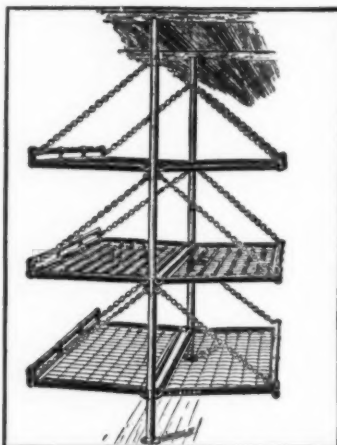
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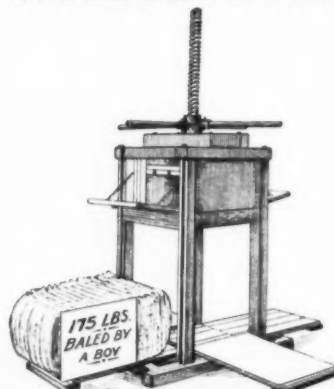
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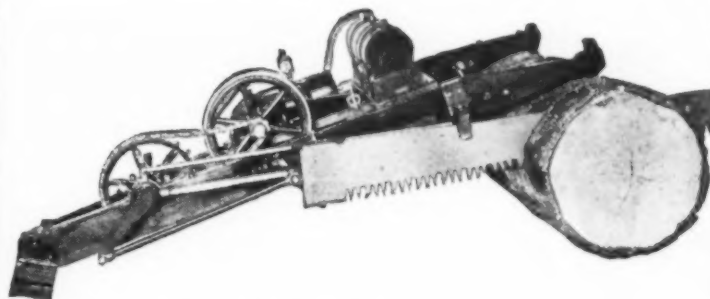
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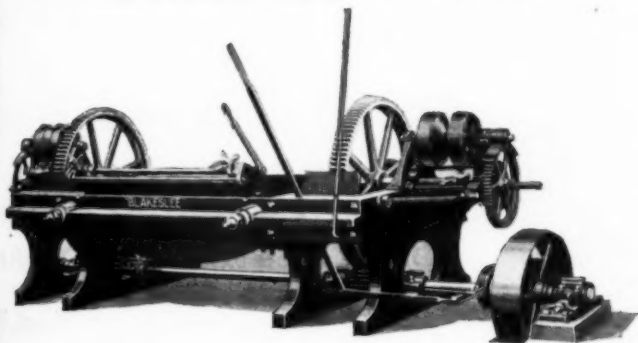
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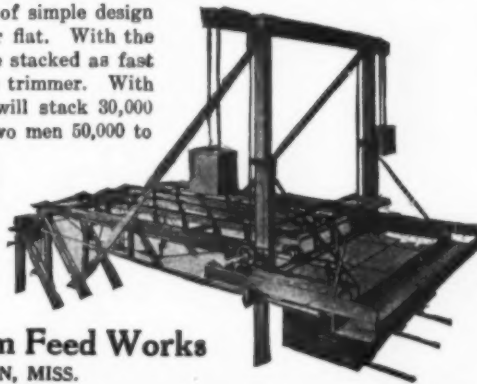
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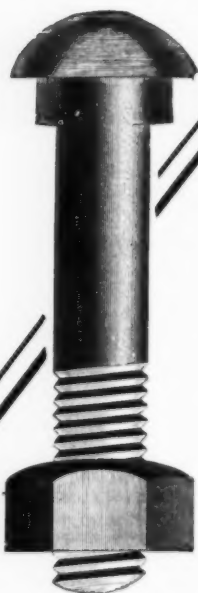
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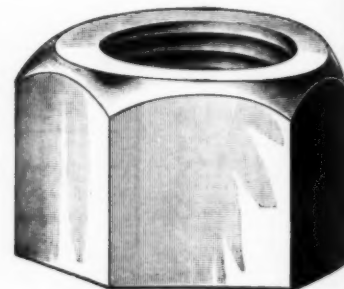
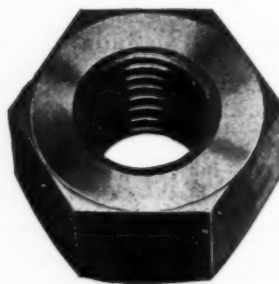
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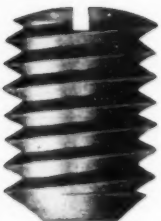
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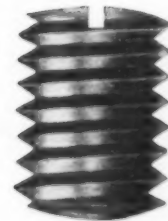
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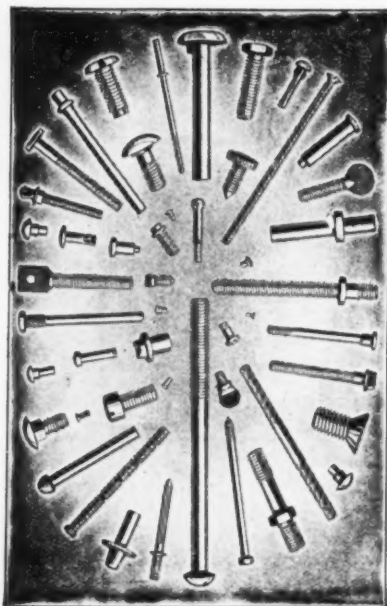
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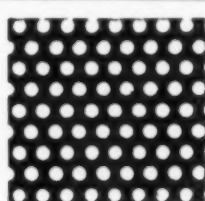
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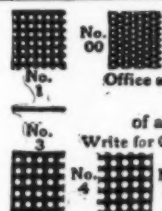
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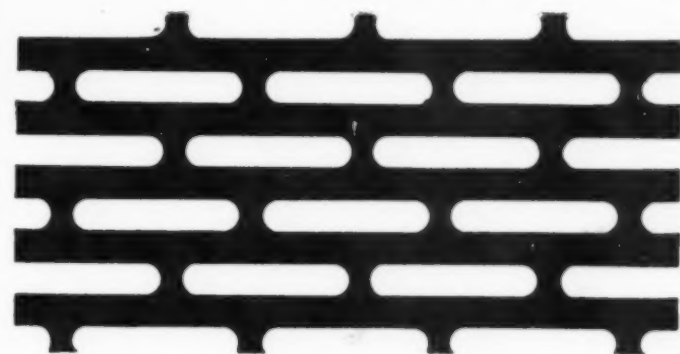


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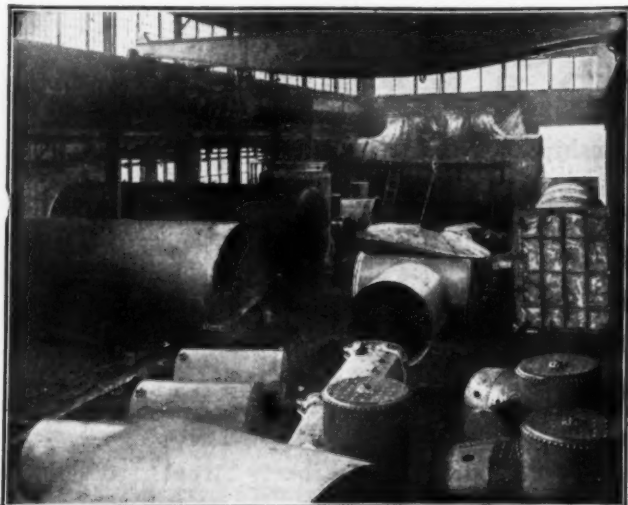
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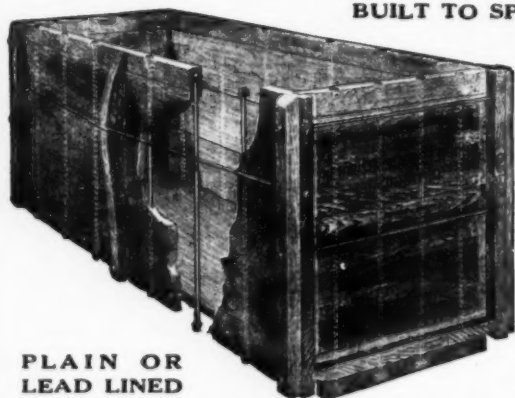
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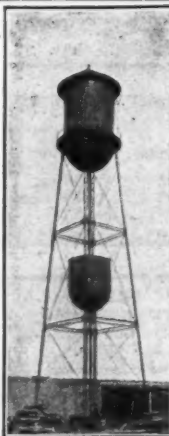
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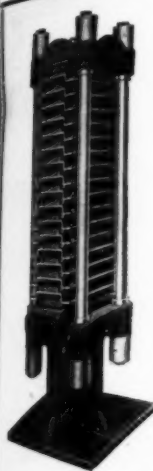
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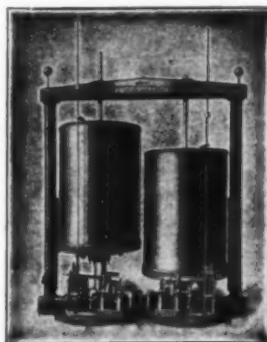
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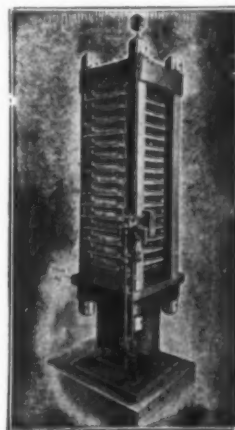
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Gregory Talc Co., Nashville, Tenn.
Harford Talc Co., Inc., The, Baltimore, Md.

TANKS.
CORRUGATED METAL K. D.
Tennessee Metal Culvert Co., Nashville, Tenn.

LEAD LINED.
Hausser-Stander Tank Co., The, Cincinnati, O.
Iron and Steel.
American Bridge Co., New York, N. Y.
American Water Softener Co., Philadelphia, Pa.
Caldwell & Son, Inc., W. E., Louisville, Ky.
Casey-Hedges Co., Chattanooga, Tenn.
Chattanooga Boiler and Tank Co., Chattanooga, Tenn.
Chicago Industrial Steel Co., of Pa., Pittsburgh, Pa.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Hartley Boiler Works, Montgomery, Ala.
Hendricks Mfg. Co., Carbonate, Ala.
Lombard Iron Works, Augusta, Ga.
Lookout Boiler & Mfg. Co., Chattanooga, Tenn.
Broderick & Bascom Rope Co., St. Louis, Mo.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Seafie & Sons Co., Wm. B., Pittsburgh, Pa.
Schofield Iron Works, Macon, Ga.
Southern Boiler & Tank Works, Memphis, Tenn.
Standard Tank Co., New York, N. Y.
Struthers-Wells Co., Warren, Pa.
Tennessee Metal Culvert Co., Nashville, Tenn.
Virginia Bridge & Iron Co., Roanoke, Va.
Walsh & Weldner Boiler Co., Chattanooga, Tenn.
West-house Tractor Brake Co., Wilmerding, Pa.

Oil.
Standard Tank Co., New York, N. Y.

PACKING-HOUSE.
Dayton Heater & Holist Co., Dayton, Ohio.

PICKLING.
Hausser-Stander Tank Co., The, Cincinnati, O.

PIPE.
Caldwell & Son, Inc., W. E., Louisville, Ky.
Davis & Sog, M., Palatka, Fla.
Hausser-Stander Tank Co., Cincinnati, Ohio.
Pacific Tank & Pipe Co., San Francisco, Cal.

TAPES. (Measuring.)
Lufkin Rule Co., Saginaw, Mich.
Starrett Co., L. S., Athol, Mass.

TELEPHONES. (Supplies, Equipment.)
Hedden & Electric Co., Asheville, N. C.
Western Electric Co., New York, N. Y.

TELEPHONE SERVICE.
American Telephone & Telegraph Co.

TERRA-COTTA. (Ornamental.)
Atlanta Terra-Cotta Co., Atlanta, Ga.

THREADING AND TAPPING MACHINERY.
Webster & Perks Tool Co., The, Springfield, O.

FRESHENERS.
Cardwell Machine Co., Richmond, Va.

TIERING MACHINES. (Portable.)
Economy Engineering Co., Chicago, Ill.

TILE.
DRAIN.
Northwestern Steel & Iron Wks., Eau Claire, Wis.
Oconee Brick & Tile Co., Milledgeville, Ga.
IRON, WALK, MASTEL, ETC.
Amer. Eng. Brick & Tile Co., New York, N. Y.
Hood Brick Co., B. Miffin, Atlanta, Ga.
National Mosaic Tile Co., Inc., Mobile, Ala.
Northcross Mantiel Co., W. J., Memphis, Tenn.
Roper-Strassner-Ferret Co., Birmingham, Ala.
BRICK.
Oconee Brick & Tile Co., Milledgeville, Ga.

TILE SLABS.
Ladlowell-Cladon Co., Chicago, Ill.

TIMBERS. (Creosoted.)
American Creosote Works, New Orleans, La.
Republic Creosoting Co., Indianapolis, Ind.

TIME RECORDERS.
Eco Clock Co., Boston, Mass.
Hardin Bros., Inc., Chicago, Ill.
Newman Clock Co., New York, N. Y.

TIN AND TERNE PLATES.
American Sheet & Tin Plate Co., Pittsburgh, Pa.
Liberty Steel Co., Warren, Ohio.
Trumbull Steel Co., Warren, Ohio.

TOBACCO MACHINERY.
Buckeye Iron & Brass Works, Dayton, Ohio.
Cardwell Machine Co., Richmond, Va.
Ripley Foundry & Machine Co., Ripley, Ohio.

TOOLS.
MACHINISTS.
Western Tool & Mfg. Co., Springfield, Ohio.
MECHANICAL.
Starrett Co., L. S., Athol, Mass.

PNEUMATIC.
Chicago Pneumatic Tool Co., Chicago, Ill.
Independent Pneumatic Tool Co., Chicago, Ill.
Ingersoll-Rand Co., New York, N. Y.

TOOLHOLDERS.
Western Tool & Mfg. Co., Springfield, Ohio.

TORCHES.
Wall Mfg. Supply Co., F., Allegheny, Pa.

TOWERS.
ELECTRIC TRANSMISSION.
American Bridge Co., New York, N. Y.

SPRINT AND WOOD.
Caldwell & Son, Inc., W. E., Louisville, Ky.
Chattanooga Boiler & Tank Co., Chattanooga, Tenn.
Cheapeake Iron Works, Baltimore, Md.
Des Moines Bridge & Iron Co., Des Moines, Ia.
Pittsburgh-Des Moines Steel Co., Pittsburgh, Pa.
Walsh & Weldner Boiler Co., Chattanooga, Tenn.

TRAMWAY.
OVERHAUL.
Spindel J. G., Reading, Pa.
Yale & Towne Mfg. Co., New York, N. Y.

WIRE ROPE.
American Steel & Wire Co., Chicago, Ill.
Broderick & Bascom Rope Co., St. Louis, Mo.
Caldwell & Son Co., E. W., Chicago, Ill.
Waterbury Co., New York, N. Y.

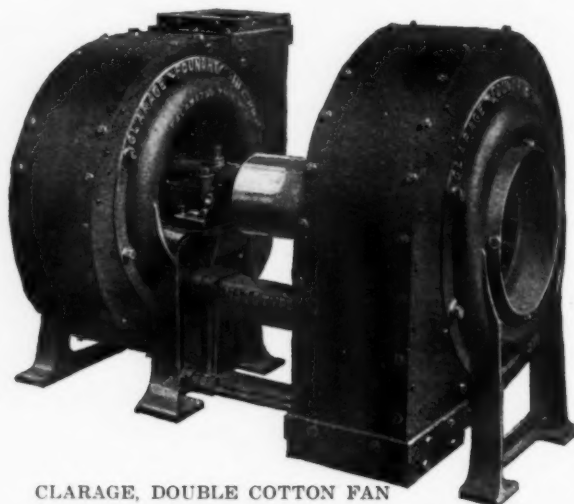
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West-house Elec. & Mfg. Co., East Pittsburgh, Pa.

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Cotton Exhausters

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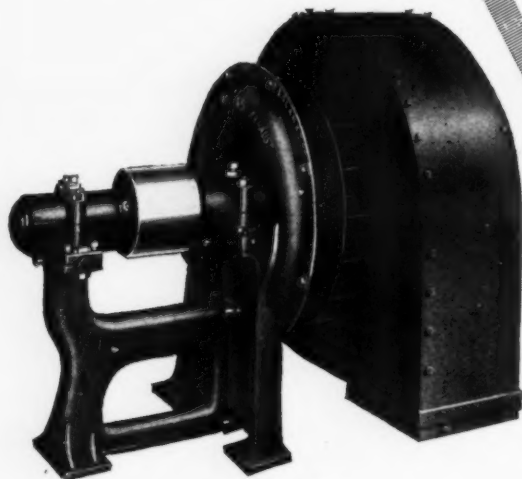
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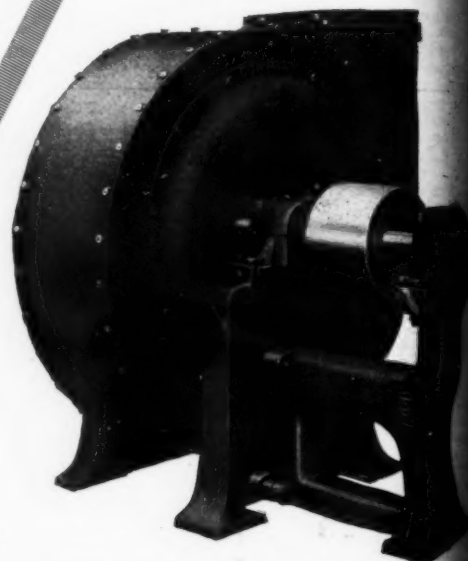
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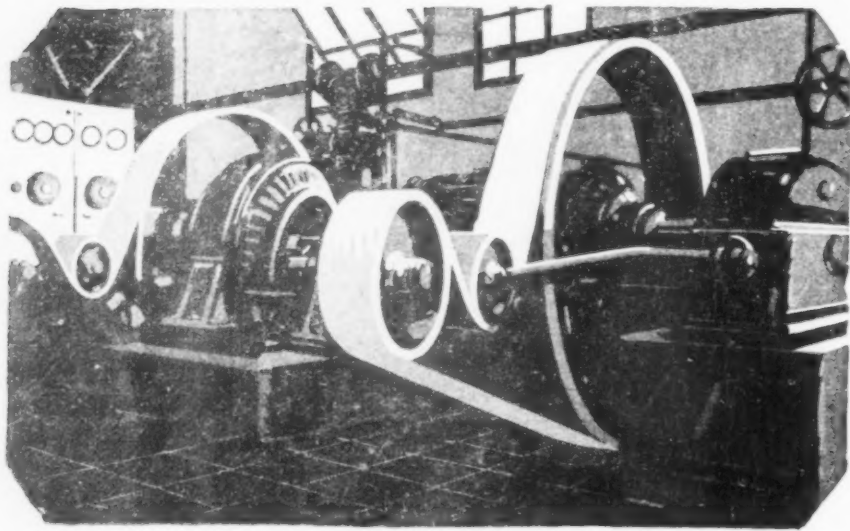
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